DOCUMENT RESUME

ED 133 806 EA 009 026

TITLE	Priorities in Australian Education.
INSTITUTION	Australian Coll. of Education, Carlton, Victoria.
PUB DATE	72
NOTE	148p.
AVAILABLE FROM	The Australian College of Education, 916 Swanston Street, Carlton, Victoria, Australia 3053 ($3.80 surface mail, $7.60 airmail)
EDRS PRICE	MF-$0.83 HC-$7.35 Plus Postage.
DESCRIPTORS	Educational Change; *Educational Objectives; *Educational Policy; Elementary Secondary Education; History Instruction; Instructional Media; Minority Groups; Moral Values; Post Secondary Education; *Social Change; Social Influences; Teacher Role; Technical Education
IDENTIFIERS	*Australia

ABSTRACT

This book consists of 14 selected papers that focus on the broad topic of Australian educational priorities. All the papers were originally presented at the Thirteenth Annual Conference of the Australian College of Education, which was held in May 1972. Titles of the papers include "Responsibility (The Buntine Oration for 1972)," "Sociological Overview of Australian Society," "Educational Consequences of Social Change," "Resources Available for Education," "Priority for the Education of Technicians," "Priority in Multimedia Education Programmes," "History's Future in the Secondary School," "Priorities in Tertiary Education," "Human Values: A Priority in Australian Education," "Teachers--A Forgotten Priority," "Priorities Within Aboriginal Education," "Social Consequences of Educational Change in Papua and New Guinea," "Priorities in the Implementation of Educational Change," and "Assessment of Priorities." (JG)

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Published by
THE AUSTRALIAN COLLEGE OF EDUCATION
914-916 Swanston Street, Carlton, Vic. 3053

Wholly set up and printed for the Publishers by
A. H. MASSINA & COMPANY, 121-131 CARDIGAN STREET, CARLTON, VIC. 3053

Registered at the G.P.O. Melbourne for transmission by post as a book.

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PREFACE

The Papers in this volume have been selected from those delivered at the Thirteenth Annual Conference of The Australian College of Education which was held in Brisbane in May, 1972.

'Priorities in Australian Education' was the theme of the Conference.

Papers presented by members were of a very high standard and it is regretted that only such a limited number can be published. The Publications Committee tried to cover as wide a field of papers related to the main theme as possible.

Mr. E. Barrington Thomas's paper on the Social Consequences of Educational Change in Papua and New Guinea is an apparent exception. However, it has been included not only because of its importance for readers in Australia but also because it does make clear the basic similarity of some educational problems in different types of societies.

The Buntine Oration, given every second year, was delivered by Sir James Darling in the Centennial Hall at Brisbane Grammar School. All other papers were delivered at the University of Queensland. A complete list of all papers presented has been published in the Annual Proceedings of the Thirteenth Annual Conference.

September, 1972.

INTRODUCTION

The theme 'Priorities in Australian Education' at the Thirteenth Annual Conference was very well discussed by over 400 members present at the Conference.

Four main papers were given as under:

Sociological Overview of Australian Society
Educational Consequences of Social Change
Resources Available for Education
Assessment of Priorities

Individual members also gave papers on topics related to the theme and some of these are included in this publication.

After each main paper the conference members divided into small interest groups where members from related areas of education came together to discuss the paper.

Later in the Conference the interest groups met to discuss all main papers which had been delivered and formulated what they considered were the major priorities in their area in education. Each group then nominated a speaker to present its major priorities to the Conference.

After the fourth main paper had been delivered by Dr. H. S. Williams a review session was held to discuss a possible draft report. As a result of this meeting, which had all the information from interest groups and from members' papers, a resolution was adopted covering the priorities discussed at the Conference. This resolution was sent to the Prime Minister of Australia and to the Premiers of each State urging that action be taken to implement the recommendations of the Conference.

CONFERENCE RESOLUTION

PRIORITIES IN AUSTRALIAN EDUCATION
MAY, 1972

As a national body of educators with membership from all areas of education, the College resolves —

THAT recognising the urgent need for the formulation and continuing review of national objectives and priorities in education, at all levels and of all kinds, the State and Commonwealth Governments be asked to set up a National Education Advisory Commission representative of professional educators and the community.

The Commission should be supported by a Planning and Research Centre which would provide information to governments, administrators, teachers and the community so that:

decisions and actions could be based on relevant data and facts;
educational change and development could be planned effectively;
resources could be allocated according to the priorities revealed by research.

The College believes that in the present situation, the areas for earliest investigation are:

(a) Experimentation with and evaluation of alternative structures through all levels of education with a view to ensuring that in the continuing process of education provision is made for meeting the needs of individuals and the community.

(b) Groups that previously have received little attention:
   i. pre-school children;
   ii. the 16 and 20 year age group;
   iii. those intending to enter middle level and technical occupations;
   iv. those for whom a combination of school and work experience would be appropriate.

(c) Having regard to ever-changing social conditions, the clarification of curriculum objectives at all levels and the continuing evaluation of the achievement of these.

(d) Improvement in the quality of teachers through better selection procedures, their initial and continuing education and the maintenance of their morale.

(e) Provision for the movement of teachers between types of institutions and states.

(f) The provision of equal opportunity in education for all children wherever they live, and whatever their circumstances.

(g) Improvement of the quality of teaching and learning through the increased provision and more effective use of regional resource centres.

THE BUNTINE ORATION 1972—RESPONSIBILITY

by

SIR JAMES DARLING, K.T., C.M.G., O.B.E., M.A., D.C.L., F.A.C.E.

I feel greatly honoured tonight in being entrusted with the delivery of this Buntine Oration, at the tail end of so many much more distinguished orators. I feel the more honoured and the more diffident because I have now for more than ten years been removed from the practice of teaching. I am especially nervous because I have promised myself that I shall make no more speeches after this one and I should have liked my final speech to be a proper swan song and not the croaking of a dying and rather inarticulate duck. Melba sang many times for the last time and I heard her on one of those occasions. She seemed to me quite perfect. Would that I could bind you with the spells that she did! or that, having accepted this honour, I could have found something fresh to say to you. On the contrary; I fear that what I have to say will seem very similar to what has already been very often said.

Try as hard as I can, read as much as I can, endure as much as I can of modern American psychological sociologists — Heaven forgive me! — struggle though I may to understand the working of the minds of undergraduates and other young, desperately though I try to maintain a reputation for open-mindedness and honesty, I do not seem to be able to come out by any other door than that wherein I went. The answer to today's troubles does not in the end seem to me to differ so much from the answer to yesterday's question or that of the day before yesterday. This may of course be due to the complete ossification of my arteries; it may be the consequence of a failure to understand the present situation, or just possibly it may be that Truth does not change. 'Magna est Veritas atque praevalebit.' Whatever the reason, the fact that I see it like this will make what I have to say uninteresting and probably unacceptable.

This does not greatly worry me; and it would certainly have worried not at all the man in whose honour these speeches are delivered. Walter Murray Buntine retired from the position of Principal of Caulfield Grammar School in 1932, having served that school as Headmaster or Principal since 1896. I overlapped his term as Principal for three years, although he started as Headmaster three years before I was born. There must surely be some significance in that, although I cannot immediately discern it. What I remember about Dr. Buntine, with whom I think I must have served on the Schools Board of Melbourne University, was a great rigidity of principle coupled with a very human sympathy. Gentlemanliness and kindness were his most obvious qualities although underneath there was a firmness of Christian character which made compromise with worldly values difficult, if not impossible. From very small beginnings he built up Caulfield Grammar School into a great school and handed on that Christian tradition which remains its most valuable possession. We cannot today go all the way with these old Evangelical Christians for whom moral questions seemed to be so clearly defined and for whom the shades of right and wrong were no better

than the wiles of the devil to deceive and to betray. Such views, if held without charity and understanding, could sometimes be cruel and harmful, but one wonders whether our present tendency to accept anything for fear of offending someone may not be in the end more cruel and, at least to the children committed to our charge, more irresponsible.

Certainly if Dr. Buntine had undertaken the task of speaking on Responsibility he would have had no difficulty at all in knowing what he thought about it, and where to look for his authority. He would have been content, I think, to use the words of another Headmaster, Sir Francis Rolland, spoken in his memorable speech in defence of headmasters:

'If the Headmaster worries over difficult boys it can only be because he believes that in the responsible Smith Major, and in the irresponsible Smith Minor and in the grubby Smith Minimus, he is dealing with the immortals, that 'the earth is but a little dust that clings to their travelling feet' and that he has to give account, not so much to their parents as to the Eternal Father who has sent His children to the school to learn there how to glorify God and enjoy Him for ever.'

To this definition of the schoolmaster's responsibility I do myself wholeheartedly and unreservedly adhere. It is a bit sad that one can no longer take for granted such adherence on the part of schoolteachers as a whole; one must instead proceed by argument to persuade them as near to it as possible. Admitted that today's circumstances in many ways make it more difficult, I still wonder whether the apparent slavery of such an acceptance of ultimate responsibility as Frank Rolland's may not be nearer to 'perfect freedom' than the refusal of the modern age to be committed to anything except itself and its own immediate desires. The determination to do one's own thing and to make the immediate project the only concern appears to give a freedom which is in fact the most sterile of slaveries. So also the teacher who allows himself to be obsessed only with the best method of teaching his own subject and shuns the acceptance of responsibility for the moral welfare of his pupils may find that he is missing the only ultimate satisfaction of his job.

I shall hope later in this speech to justify such assertions. In the meanwhile we must ask why the task of the schoolteacher today seems more difficult than it was, or seemed to be, in Dr. Buntine's day. In a most penetrating address to a Road Safety Conference earlier this year an eminent Headmaster from Victoria attempted to define the malaise of the young in the affluent society. It is really unfair to quote him out of context, and you must take my word for it that he made all the necessary qualifications. Having shown the various ways in which the existing society imposes more difficulties, simply by virtue of its increased complexity, he analysed the ambivalent attitudes of the young towards their elders and their tendency to lump us all together as frustrations and hypocrites — that is, old people, that is, government, law, police, all of them, the enemy — them! 'The young,' he went on, 'feel cynical, fearful and frustrated, inadequate, hurt, resentful, guilty, unfulfilled without self-esteem, misunderstood, rejected and angry. Helpless, hapless and hopeless!' Is it really as bad as that? Of course not. There are still masses of young, thank God, 'finished and finite clods

untroubled by a spark'. The distressing thing is that it is the best of them who feel so disturbed.

Particularly in Australia they can find much against which to protest. In European countries there are some relics of old standards to set themselves against values based only on Money. Even in America there are in the small towns a faithful and devoted Christian minority who have steadfastly refused to accept money values as absolute. Australia suffers peculiarly. People here are classed by income, the prestige of occupations, by the financial returns which they offer, success by the motor cars and boats which a man can own. This money standard turns upside down any proper sense of values and it is not surprising that the sensitive and intelligent young revolt against it, and especially so when the educational process seems to accept, even to encourage it.

But whatever the process does it is not for us, the members of the teaching profession, to accept the situation as inevitable and to take no responsibility either for its cause or for its cure. Admittedly, over some of the causes we have no control. There are some circumstances which must be accepted because they cannot be avoided. We cannot stop the world because we want to get off; we cannot even slow down its, as it seems to us, too rapid evolution. We cannot go back to the reasonably populated, divided and slow moving world of even one hundred years ago. We must accept instantaneous communication, total involvement, the technological age and the transience of things and ideas. With these it seems we must accept for the time being over-population, pollution, nervous strain, stomach ulcers, disillusionment, disenchantment and despair, though these are none of them inevitable results of the others. I make the point that there are some aspects of the time and world situation which, as we cannot escape, we must accept, but there are others which, having seen, we must not accept but must on the contrary do everything in our power to combat.

It has always been a problem for those engaged in its profession that Education seems to play a more important role in the influencing of society than it really does. Except when it is used positively as in Totalitarian Countries to impose universal ways of thought, it reflects rather than creates the society of which it is part. This failure to be an effective instrument for change is the result of the freedom of our society and also of the identification of democracy with the rule of the majority. In the Bible, it has been noted by no less a scholar than Archbishop Temple, the majority is always wrong. It is not very obvious that they have learned any greater wisdom since those days. Therefore since the majority controls the politicians, and the politicians control the Education system because they pay for it, it follows as the night the day that those engaged in Education are at a disadvantage if they wish substantially to alter the bases of society. This is the main argument in favour of the dual system of Education, and the preservation of independent schools, and it is a great pity that independent schools do not take as much advantage of their independence as they ought to in order to justify themselves.

This failure of the educational system to be, or appear to be, an effective instrument of change is what so infuriates the young men and women at the

universities. Some of this discontent seeps down into the secondary schools. It is nurtured and encouraged by the young teacher not yet case-hardened by his own reiteration. I suppose that this is a good thing; certainly it is when it is directed into idealistic areas rather than merely materialistic aims of better conditions for teachers. It is easy to get one's priorities mixed and to fall into the error of equating the two objectives. It is hard for anyone of my generation to accept the possibility of industrial action even if the ultimate objective is better schools for children. When it is a strike for better conditions and salaries for teachers it surely becomes professionally insupportable.

What then are the basic complaints? First, against society itself, against the very affluence which makes life so easy for them when compared with the ages in which their fathers and grandfathers grew up. Many of the young consider that the price which has been paid is too high. The annual increase in the Gross National Product does not strike them as a very worthwhile objective. Even while admitting that so much of what is potentially good would be impossible without the increase in productivity one cannot feel that they are very far wrong.

Secondly, there is a more or less sophisticated reaction against the technological age and its elevation of efficiency as the supreme object of devotion. While not necessarily objecting to modern methods of achieving results they question first of all the results, as to whether they are worth while, and secondly the methods by which the results are to be achieved. They fear particularly that the efficiency of method may become an end in itself without regard to the true objective sought. Against this cult of efficiency for its own sake the young react with an almost blatant attempt to live irregularly, to make no plans, to accept no commitments, in such a way as in fact to involve themselves in a quite intolerable lack of consideration for other people.

Thirdly, they object to the hypocrisy of their elders who, in their judgment, preach one thing to them and practise quite another themselves. There is a lot of course to be said for hypocrisy — the homage paid by vice to virtue (No! not Oscar Wilde but Rochefoucauld) — but the young never have so seen it nor do they now see it that way. We old ones reckon that we cannot live up to our own highest ideals, but at least we can state them. They, the young, feel that to state them and not live up to them is an hypocrisy. Perhaps it is. It is an easy step from this to object to every moral principle on the ground that it must by definition be an hypocrisy. In 1930 a boy who was caught stealing felt that he had done something wrong; by 1960 it was necessary to explain to him why it was wrong or at least anti-social. I imagine that today you have to defend yourself for being so old-fashioned as to object to it at all.

But perhaps the main difference between the young of today and of other days is that today they are articulate and powerful. In mere numbers they tend to dominate public opinion as they very largely, from their comparative affluence, dominate market demand. One of the phenomena of a rapidly growing population must inevitably be a growing preponderance of

young people in the communities. This naturally enough alarms the older members of the society, who react defensively from their established position. Envy on the one part and fear on the other are the basic reasons for the polarization which is so evident particularly in universities but seems likely to spread into lower age groups.

All these causes of distress are enhanced by the magnitude of the problems facing the world, by the speed of change, by the universality of experience, by the extreme mobility of the age, and by the threats of global cataclysm which have become almost commonplace to our thinking. It was hard enough to grow up in an apparently stable world; it was satisfying to buck the establishment when it was really established authority. It is much harder and less satisfying when the establishment itself has become so very unsure of itself. In the next few years it is unlikely that things will become easier. Even if the educational process is not responsible wholly or even in part for the situation it is surely responsible for doing something to rectify it. There was the other day on the ABC a much advertised 'Great Debate on Education', from which I hoped that I would come away enlightened. I have hoped for the same thing at Conference after Conference of this College. Always I have been disappointed, as I was the other night. If we are to meet the problem we have got to go more deeply into it than seems to be our custom. The College, both centrally and in its Chapters, is probably the only body disinterested enough to redeem the situation. For this purpose came it into the world, I think, and on its courage and wisdom in meeting the needs of the day will its continued strength depend. I should like to see it concerning itself much less with the politics on the one hand and the techniques of education on the other. The political side is unlikely to fade through lack of devotees and we can safely leave the techniques to the university schools of education. Our responsibility is to try to work out the psychological and philosophical needs of our society and particularly of the young who form so large a part of it. The fact that this search will lay bare some basic divisions of thought and belief amongst us must not deter us. Nor should the likelihood that in coming to any conclusion we may find ourselves forced to take a stand on one side or the other about ethical, political and even religious values. An education which runs away from the three most important aspects of life is no education for living at all. It is simply nonsense to pretend that all we have to do is to set up the ring for each generation as it comes along and trust to it to arrive de nouveau each time at the right conclusion for itself. Such an attitude is a complete abdication from the responsibility which gives dignity to our profession. A part at least, surely, of Education is the receiving, handing down and interpreting the culture of society at its best, so that the new generation can have the chance to stand upon the shoulders of the last. It is only from this height that they can do the next thing which is to question and reform.

I shall come back to that before I end, but first I should like, greatly daring, to make some suggestions as to what may be the solutions, or at least where to look for them. My own belief is that, though there is much need for reform in most parts of the process, certainly not excepting the universities, it is on the so-called secondary school that it will be most

profitable to focus. The first thing to do is to re-define Secondary Education. Having done so the need for a complete re-structuring of the educational system will become obvious and with it a re-examination of our own responsibilities as teachers within the new structure.

It is platitudinous to say that the Australian secondary school has never got away from its English origins as a place to which people went primarily in order to qualify for entrance to the university. In Victoria the foundation of the older private or church schools came after that of the university and was specifically justified on those grounds. It was assumed that a society needed a certain number of university trained citizens — lawyers, doctors, engineers in particular. It was further accepted in the first place that these professions could be most or at least quite adequately filled from amongst the sons of those who were rich enough to pay for university education. Naturally enough these schools were used also by those who were rich enough to pay the fees even though neither their ambitions nor their capacities were likely to direct them to the university. It was assumed that what was good enough for the potential scholars would at least do no harm to the dolts. This was an error of thought but it was firmly held and must alone have accounted for the enormous amount of time that has been wasted in the last five hundred years in forcing Latin into unreceptive receptacles.

The concept of an elite selected on academic merit from an elite determined by social and economic position was sufficiently undemocratic to be challenged fairly early in this country, but perhaps unfortunately on democratic rather than educational grounds. The argument was not so much that this was a silly system of education as that if some had the chance to go to the university and become highly paid and highly respected doctors then the opportunity should be open to everyone. This sort of argument is still used extensively. Fair enough though it appears, it has its weaknesses, and certainly does not help to create a sensible educational system. In the end I suppose that there must be competition in any society for the jobs which seem to be most highly rewarded. Demand and supply of talent cannot ever exactly balance, but it is a pity if the education of the whole society suffers because of a confusion of priorities at the top.

The clear and obvious truth is that as soon as the demand for education above the three R's grew beyond the elite, whether of intelligence or of social status, then it became necessary drastically to define anew the purpose and to plan afresh the methods of secondary education. This need has been known for many years; educational thinkers have proclaimed it and pontificated about it; individual schoolmasters have experimented with it; but while the structure remains substantially unaltered there can be no satisfactory answer. We have tried the Butler Education Act with its fairly logical division at eleven plus. This ship foundered on the rocks of parity of esteem and the demands of a competitive society. The present answer in Britain is the Comprehensive School, which as it seems to me, is begotten of a calculated determination to get the worst of every world. Two widely separated countries seem to have produced something like the same and the right answer — Sweden and Japan — but I don't know how politically successful they have been in implementing their design. Let us therefore look at our own problem and our own needs.

There are numerous, perhaps innumerable, weaknesses at all levels of the system and these need to be corrected, but they are the symptoms rather than the disease itself and we shall not cure the patient by fiddling with them. Basically it is a problem of priorities in responsibility. The educational process, if we may for the moment give it identity so as to make it capable of responsibility, must look in a number of directions in order to fulfil it. He, — it, — is largely paid for by the State, that is, out of the taxes drawn from the pockets of all the people. It would seem obvious that money thus collected should be used for the benefit of the whole people, that is — or isn't it? — the State. For the moment that you accept the State as being synonymous with the people you open the door to all the totalitarian heresies. It is nevertheless on this philosophy that the Commonwealth Government very largely determines its grants and in particular tries to dominate the money which is spent on Research. By this argument it subsidises secondary and university students, particularly in Science and Engineering, so that the material requirements of the State shall not be wanting. That last word is like a bell which tolls one back to the ancient foundations, 'that there shall never be wanting men of piety and sound learning', but this was a rather different objective, and much nearer the proper mark.

A technological society does need its technological experts and it is part of the educational process to provide them; but this is not enough; nor must the one need choke or swamp all the others. Particularly in the new dispensation secondary education must be largely freed from such demands if it is to be able to fulfil its proper function, which is no less than to fit men and women as happily as may be to live in the world and age in which at no request of their own they have been born. It is a tall order but nothing less will do. It will be seen that it does not exclude in its range the capacity to earn a living but it must do much more than this for many reasons, but possibly not least among them, because earning a living is likely in the future to take a reducing toll in terms of hours; consequently more hours are going to be left to be filled with other activities. If we wish to get away from a society dominated entirely by money then it is important that we should help people to discover ways of being happy which do not demand money resources. Education in fact is the process by which men and women discover and develop the resources within themselves that will enable them to grow and increasingly to enjoy living because they find more and more in life which is enjoyable.

There are many qualifications to this simple doctrine and it is hardly worth my while to expound them to you in order to show you that I am aware of them. They boil down in the last resort to two axioms: first, that there can be no excellence even in enjoyment without effort and, secondly, that there can be no happiness which is based on self-centredness. But if these two massive qualifications are remembered there is still room for a kind of education for the 12 - 16 age group which is very different from what we normally provide. We should all probably admit that, if we were asked where to look for examples of education fulfilling its purpose most effectively, we should point to the kindergarten, sub-primary and early primary years. It is significant that it is here also that we should find the

highest proportion of children positively enjoying the process. The other place where we could expect the same satisfaction might be in the highest ranges of research workers in Medicine and Science, although even here the purity of life is beginning to be tainted by competition and envy. The new secondary education must strive to emulate the spirit of the sub-primary experience with the necessary adjustments for age.

If the boys and girls of today are being faced with stiffer rather than lighter problems of adjustment to life then it follows that the curriculum and syllabus of the schoolroom must be more rather than less directed towards this aim. In fact, the greater competition for entry to universities does the opposite. The word 'relevance', so freely used in arguments about education, in fact begs the question and needs a closer definition. The present secondary course is divided into subjects selected on the basis of academic needs at a later stage. The demands of these subjects crowd out everything else and make difficult even the acquisition of what I have once called the moral qualities of the intellect, let alone the information about life required to meet it. With apologies for using a bad example, it has proved extremely difficult, if not impossible, to weave into the educational programme at the secondary level anything about road safety. Yet the motor car is one of the greatest killers of the young today. Similarly, there is little or no room for politics, for hygiene, for morals, for religion. But these are surely nearer to the needs of the young than much else that they learn. Nor is there room either for the developing of the imagination, for the elevating of taste, for the enlargement of interests, nor even for the disciplining and improving of the body. These are the sort of interests which must occupy most of the secondary course, and they can only do so at the expense of the more orthodox subjects.

If on the one hand we accept the disorientation and disenchantment of the young and on the other hand resent the steps they take to show them, the answer surely does not lie in little red books which will teach them how to be more effective nuisances. It must on the contrary lie in the conscious training of the intellectual and moral qualities which are the marks in all ages of the civilized man. They include accuracy, thoroughness, discipline, industry, honesty, imagination, sympathy and devotion. Those who possess them are not the victims of self-interest or the dupes of demagogues. They have the strength of mind not to conform — no, not even with their own age group. Instead they are capable of collecting and studying facts, of weighing consequences and forming independent judgments. They have the intelligence and intellectual discipline to do this; they have the courage to face the consequences of standing on their own feet, if necessary alone, and they have a width of understanding and sympathy which makes it impossible to use their superiority for their own ends.

There is nothing new in this. We have all been trying to teach these qualities for centuries as by-products of formal subjects. It may be that in future our attempt must be more direct or that we must use other subjects which are closer to the lives of the larger numbers who now have the opportunity of such education.

The obvious question asks itself — how long can this continue without making impossible the high scholarship necessary in a modern society and

indeed without boring the more ambitious minds of the pupils? My answer is that there are very few subjects which cannot be learned much more expeditiously at a later rather than at a younger age but that this is only so on condition that whatever education is given in the earlier years does constitute a real intellectual discipline. This last depends much more upon the quality of mind of the teacher than upon the subjects taught and also answers the second question about not boring the minds of the intellectuals. I postulate in consequence between 15½ and 16½ as about the right age for the end of this Primary-Secondary phase. It does also point to the most serious defect in the proposals. There is a natural but deplorable tendency on the part of secondary teachers to seek satisfaction in the teaching of higher forms. Natural this is, because it is reasonable enough for teachers who have once been learners to retain an interest in subjects and wish to pursue the study of them; deplorable because it is in the earlier stages of education that the conclusive work is often done. It is of the most vital importance that clever children should come up against first-class minds early in their course. They will not have this chance if the best teachers seek the higher and avoid the lower forms, and if even the rewards are illogically loaded in their favour. Somehow the teaching profession must adjust itself to the realisation of what is most important. Even so there will be ground to be made up in the foundations for academic work.

At the end of this phase we must start the more vocational training. The usual division is into Agricultural, Technical and Pre-university institutions. These last would be an innovation for Australia, and approximate to the Junior Colleges of the American system. They would be at least three years in duration, probably four, taking at least first year off the universities and possibly some part of second year. This would force upon the universities something which has been for a long time necessary — a drastic re-examination of the content of their existing courses. The Junior Colleges would of course be co-educational and, while being geared to the purposes of preparation for university work, would also act as a terminal course with a Diploma or even a lower degree at the end of them. I can see in them also a way of solving three other of our problems: first, they would be places in which the products of the State and independent systems would come together, thereby anticipating the process of integration which is more difficult at the later stage of the university. Secondly, they would be places in which the transition between school and university teaching could be most happily resolved. Thirdly, I can see them as helping to solve the financial problem of education costs as between State and Federal Governments. I would take the cost of the universities and the Colleges of Advanced Education away entirely from the States and give them one financial Master only, the Commonwealth. I would leave Primary and Secondary Education entirely with the States and would hope that with the reduced range they might be able to cope better with the problem than they can today. The Junior Colleges would also be primarily a State responsibility but I would base their finance largely on fees and expect the fees to cover the running costs, and I would put the burden on the Commonwealth of providing the great majority of the fees by scholarships awarded on merit.

My picture of a reformed structure is then, for what it is worth, as follows.

Greatly enlarged facilities for sub-primary education. This should be provided in two ways, by local effort, in which I believe the churches and local government could find a most useful field of action, and, if industry maintains its demand for female labour, by industry as in Japan.

Primary and Secondary Education almost fused for the ten years between 6 and 16. The dual system of State and Independent authorities would remain, but the content of education would be directed towards the real needs of the child and to his interests and thus away from the demands either of university or future employer. This is not the place for — nor am I really capable of — defining further what I mean by this. Many of us have been trying to do it for years, although continually frustrated by university demands. There are plenty of teachers who would know how to use the opportunity thus created.

This period would be followed by the Junior Colleges, which would be selective in intake, though not so selective as the universities are today. For some students, it would be a preparation for entry to the universities and therefore an opportunity for a high degree of specialisation. For others it would be terminal and therefore provide a more general education. Beyond the Colleges the universities would be able to do their real work, freed from some of the more elementary teaching and relieved of the burden of a number who at present enter without the prospect, perhaps even without the intention, of completing the course.

Such or some such structural alterations are necessary if the educational process is to meet the needs of the disenchanted young. But a revised structure is not enough nor indeed is it the most important change required. Much more so is the change required in the attitude of the teacher to his pupils. This is a real issue of responsibility, and it is not likely that we shall all agree about it.

I am tempted at this stage to acquire a little spurious reputation by interrupting my discourse with slides or at least one slide. Resisting the temptation, I ask you to visualise the teacher in the middle of the picture with arrows, unlike Saint Sebastian, pointing away from him in a number of directions. These arrows represent his various responsibilities. Their most obvious targets are the pupils themselves, the parents of the pupils, the employing agency (be it church or state), the good of the nation as a whole. These objects of responsibility are reasonably concrete and obvious. There are, however, more abstract objects of responsibility, for example, professional integrity, ultimate truth, impartial detachment and similar such notions. These are more difficult to visualise but you may be able to think of them as hovering around the teacher's uneasy head as he makes his choice between the other claims upon him. Looked at in another way they are the influences by which or according to which he will make his judgment as to where his responsibility lies. For some of us, shining above the picture there is the Alpha and Omega of the whole affair, for to those of us who accept the concept of a Creator God all responsibilities are taken up in responsibility to Him. Even without such specific belief there is what we

can all accept, a kind of over-riding responsibility which we will call the responsibility of special personal relationship.

There can be no escape from this for the teacher; it is the old doctor-disciple relationship, and for the doctor to try to avoid it is to betray the disciple. Without doubt it is important for the pupil to learn for himself, to develop logical methods of thought, to think for himself and to develop capacity for making his own judgments. Teaching is not pouring dirty water into cracked pots; it is much more like watering a growing plant. All this is obvious but it also seems obvious to me that there is no merit in a cold-blooded detachment of the teacher, so obsessed by the necessity of not imposing ideas that he appears to have none at all of his own. Nor in the relationship with a disciple can the teacher escape the responsibility for discipline, in the first place perhaps only intellectual discipline but in fact something wider than that. The disciple has the right to demand that he shall not work in a vacuum as though he was the first visitor to an earth already grown complex. In a varying though reducing degree the teacher must provide a frame in which the pupil as he grows older can operate until there is no longer need for the frame. To deny him this is to default on our most insistent responsibility. The risks of such an acceptance are, first, the obvious one that we may teach him wrong and, second, that by teaching him at all we usurp an authority which must in the last instance be his own. These are grave risks and they make school teaching a hazardous and dangerous profession, but, for fear of the risks, to take no line at all and to stand or appear to stand for nothing is a denial of the whole essence of the job, because it denies the personal relationship in which teaching and learning inevitably involve the participants.

You will not, most of you, need to be reminded of the fairy story by Saint-Exupery called 'The Little Prince'. Solitary upon his tiny planet the Little Prince found and protected and nourished a single rose. Visiting our own planet he was approached by a fox with the request that he would tame him, for only if he was tamed, the fox argued, would he be different from other foxes, Only by personal relationships can personality develop.

'"It is only with the heart that one can see rightly; what is essential is invisible to the eye."

"What is essential is invisible to the eye," the Little Prince repeated, so that he would be sure to remember.

"It is the time that you have wasted for your rose that makes your rose so important."

"It is the time that I have wasted for my rose —" said the Little Prince, so that he would be sure to remember.

"Men have forgotten this truth", said the fox. "But you must not forget it. You become responsible, forever, for what you have tamed. You are responsible for your rose . . ."

"I am responsible for my rose", the Little Prince repeated, so that he would be sure to remember.'

SOCIOLOGICAL OVERVIEW OF AUSTRALIAN SOCIETY

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Two thousand five hundred miles above Alice Springs a man sat writing a report. Beside him lay piles of books and journals. Among them were the Australian and New Zealand Journal of Sociology, the Australian Journal of Education, the Bulletin, the Sporting Globe, Ronald Henderson's 'Poverty in Australia', Sol Encel's 'Equality and Authority in Australia', Russell Ward's 'The Australian Legend', 'The Great Australian Stupor' and many other tomes, both learned and popular. On a video screen beside him the Australian continent was shown in broad outline, on it were superimposed iso-socies, which are lines connecting points of equal social status.

His report was entitled 'A sociological Overview of Australia: *Report and Recommendations*'; and it was addressed to the President, Supreme Academy of Social Sciences, Mars. Leaving aside the learned footnotes and references the report, which is obviously written with the interplanetary tourist in mind, reads as follows:

Gentlemen, following my commission, I have observed Australian society continuously for twenty five years. I have read all the important documents and taken particular note of what the learned men in the country have to say. This is what I found.

At this point in the report the author had written a sub-heading:

SOCIAL STRUCTURE

Like Mars, Australia is criss-crossed with lines. These however are not canals as in our case, but divisions in society. Despite a myth of equality, to which Australians are particularly addicted, the country is like other technologically advanced societies on earth in that its people are divided by class, status, sex, age, race and religion. These sub-groups differ from one another in respect to resources, attitudes and style of life.

Australian social scientists place great stress on these divisions and use occupation as the main indicator of social class.[1] Ordinary people also use occupation or work, as they call it, as a means of classifying one another. A common question when two male strangers meet is 'how do you earn a crust mate?'; a question frequently asked of young children by adults is 'and what are you going to *be* when you grow up, my dear?'. The sociologists divide the work-force into three main groups which are called upper, middle and lower classes. The upper class consists of managerial and professional occupations and accounts for approximately one-fifth of the male work-force; middle class comprises white collar, clerical and sales workers and

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[1]For example see Broom, Leonard, 'Work-force and Occupational Status of Aborigines', *Australian and New Zealand Journal of Sociology*, 7(1), 1971.

accounts for about two-fifths of the work-force; the lower class consists of manual workers and also accounts for about two-fifths of the work-force.

There is considerable blurring at the boundaries of these categories and in the appendix you will find a more complex classification. None the less many important attributes are associated with social class. One is political attitudes. Those in professional and managerial groups are much more likely than those who are in the manual class to vote for the political party which is called Liberal.[2] A second important correlate is income, the upper group receiving on average about four times that of the lowest group.[3] For some of the people in the lower groups survival is a great problem and more than seven per cent of all Australians have been estimated to be below the poverty line. Included in these numbers are more than forty two thousand children.[4] Most of the poor have one or more of the following disabilities: low wages and periods of unemployment, old age, lack of male breadwinner, a large number of dependent children, recent migration to Australia, or prolonged illness. They are also the least educated in the nation, and their children will also suffer inferior education. As we shall see, a self-perpetuating cycle exists: of poor education leading to poverty, leading to poor education, and poverty in the next generation.

Education is associated with class in two ways. First, the upper classes have had more schooling: two out of three of the professionals and managerials have completed secondary school compared with about one in ten of the lower manual workers.[5] Attending university is, of course, mainly a middle and upper class phenomenon[6] (See also Appendix). Secondly, social class is related to the level of educational achievement of children. Australians have two outward and visible signs of education prestige. These are called the Commonwealth Secondary Scholarship and the Commonwealth Tertiary Scholarship respectively. The upper social groups obtain more of these awards.[7] Australian research workers maintain that economic circumstances contribute towards the winning of these scholarships; and that scholarships are not responsible for children staying on at school. This result is regarded as unfortunate by many Australian educators who had hoped that scholar-

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[2]Embury, Brian, Some Determinants of Party Identification: A Quantitative Model. Seminar Paper, Department of Political Science, Research School of Social Sciences, Australian National University, 1971, using data from *The Australian Survey Project* by D. A. Aitken and M. J. Kahan.

[3]Broom, Leonard; Jones, F. L. and Zubrzycki, J., Five Measures of Social Rank in Australia. Paper presented to the 6th World Conference of Sociology, Evian, 1966.

[4]Henderson, Ronald F.; Harcourt, Alison and Harper, R. J. A., *People in Poverty: A Melbourne Survey*. Melbourne, Cheshire for the Institute of Applied Economic and Social Research, University of Melbourne, 1970.

[5]Broom, Jones and Zubrzycki, *op. cit.*, (3).

[6]Anderson, D. S. and Western, J. S., 'Social Profiles of Students in Four Professions', *Quarterly Review of Australian Education*, 3(4), 1970.

[7]For example see Anderson and Western, *ibid.*; Anderson, D. S. and Beswick, D. G., First Report to the Campbell Committee, Canberra Secondary School Survey, 1972: The Proposal to Introduce Fifth and Sixth Colleges in the A.C.T. (Also published in the *Canberra News*, April 26, 1972, and to be published in *Education News* later this year); and Fensham, P. J., 'The Distribution of Commonwealth Scholarships in Victoria', *Australian Journal of Education*, 9, 1965: 239-46.

ships would lead to greater democratization of schooling. There is a clear counter-trend to the trend for more educational opportunities for the less privileged. As reforms to help the under privileged are introduced parents in the upper groups become even more insistent that their children work hard so as to maintain their position in the hierarchy. One effect of this is for vast numbers to prolong their formal schooling in order to be ahead in the qualifications race. Should the present trend towards longer participation in school continue, by the year 2,000 A.D. Australian parents will still be in full-time schooling as their own children start primary school. There is not always any clear relation between the standard of qualification and the occupation for which it is a prerequisite.

For example, an educational sociologist has observed that bank tellers are generally recruited after matriculation although their task remains much the same as when intermediate was a satisfactory standard. Dentists, many of whose professional tasks are mainly the simple health care of a small part of the human anatomy, must spend five years in full-time training at a university. Even though lawyers, whose lives will be spent in the specialised task of conveyancing must matriculate and then study for a further four or five years. Doctors spend up to one-quarter of their lives, from pre-school to retirement, in full-time formal learning; and then if they do not take refresher training they are held to be out of date and a menace to their clients. Meantime new professions are demanding higher standards for their members, nurses and estate agents for example want degree courses. The trend to overtraining is not unique to Australia, and indeed has not gone as far as in the United States of America where a recruit to the profession of undertaking may do a three-year degree course in mortuary science, complete with appropriate theory and practical work.

As in other terrestrial countries the Australian society has two sexes, male and female, in that order. The second sex now has similar legal status to the first, except in respect of jury service, employment in the public service and in wages and salaries.[8] Of greater significance is the actual place of women in Australian society. Few are in the higher status occupations; women comprise less than one-fifth of the doctors, one-tenth of the lawyers, and 0.1 per cent of the engineers. On the other hand teaching, which is a lower ranking profession, is favoured by women who now form the majority in this group. One social scientist has commented that 'it is one of the ironies of social structure and social values that school teaching, which is the professional task most disturbed by even short breaks in the continuity of employment, is also the one which recruits by far the most women. Medicine, law and engineering, along with most other professional jobs, could sustain the interruptions due to the demands of childbearing and childrearing without much more loss than the output foregone during days 'off'; in a school classroom the frequent change of a teacher retards the learning process far more than that due to the mere loss of time involved."[9]

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[8]See Enid Campbell's Appendix 'The Legal Status of Women in Australia', in Norman MacKenzie, *Women in Australia*, Melbourne: Cheshire, 1962, 359-407 *passim*.

[9]Anderson, D. S. and Western, J. S., *op. cit.* (6).

Women are found most commonly as clerical and sales workers in the middle class and as semi and unskilled production and process workers in the lower class group. When the two main female professions of teaching and nursing are removed women comprise only about one-twentieth of the upper class occupation category.

In education girls tend to leave school before boys and in higher education they are outnumbered by about two to one. Assuming an educational hierarchy, from primary school to graduate studies, the proportion of the sexes is: at entry to secondary school fifty-fifty, at sixth form sixty-forty, in university seventy-thirty, in graduate studies eighty-twenty, and in the professoriate (the pinnacle of scholarly achievement) about ninety five to five. The origins of these differences are to be found in the attitudes and beliefs of women themselves as much as in any positive discrimination by the first sex. From their earliest years female Australians are indoctrinated by their mothers, teachers and the media with values which prepare them for a feminine role in which conformity, sexual attractiveness and middle-class domesticity are stressed at the expense of ambition and intellectual achievement. The learning of sex roles is reinforced by segregation into separate schools, or where schools are co-educational into separate sex groups. The social segregation remains in later life so that, for example, only men drink in a public bar; and in social gatherings men and women form their own groups, even when together in a small room.

The third line of inequality which may be drawn across Australian society coincides with nation and race. In the past twenty-five years 2.5 million new settlers have been admitted to the country; over half of them non-British. These people and their children now comprise one-fifth of the population. The position of migrants in the workforce is something like that of women. That is, they are mainly in lower class jobs. Similarly in education: migrant children, like females, are prone to leave school earlier. The combination of these categories is devastating and the chances of a lower class migrant girl entering higher education is about one in one thousand. By second generation, however, the position of migrants has changed somewhat and in universities, for example, the percentage of Australian-born *male* children of migrants equals their proportion in the community.[10]

This is not the case for black Australians who have been in the country for countless generations. These people are invariably in lower class jobs, few of their children finish secondary schooling and virtually none enter higher education. The clash of totally different cultures is catastrophic for the subordinate group and poses problems which seem as far as ever from solution.[11]

The final distinguishing line of importance is age. This line is most marked at 60 and 65, when most Australians are forced to leave productive occupations, irrespective of their capacity to work. The renunciation of occupational roles is accomplished by psychological changes, notably from

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[10]Anderson, D. S. and Western, J. S., *ibid.*

[11]Dunn, S. A. and Tatz, C. M. (eds.), *Aborigines and Education*, Melbourne: Sun Books, 1969.

a status of independence to dependence. Prestige and respect are not accorded the aged in Australia. Many live apart in institutions created especially for them, because the attitudes of their grown-up children and of social policy are against multi-generation family units.

Sex, race and ageing are immutable and individuals have little alternative but to adapt to the social roles which are prescribed: for men and women, for old and new Australians, for young and the aged. But this is not so for social class where individuals may alter their own life position. Australian society is marked by considerable social mobility, greater than in many countries in the northern hemisphere of the planet. Education is the key to mobility and the majority of Australian parents now see schooling as the principle means for enhancing the life-chances of their children. Because room at the top of the social hierarchy is not unlimited, and there is only room for a few professionals and managers, there is a great deal of competition associated with Australia's open class structure.

Educationists constantly complain about the destructive effect which social competition has on educational objectives. The competition is most intense at the point of transition from secondary schooling to higher education and experiments are under way to test new methods of governing admission to the limited number of places in universities. However no method (except perhaps a lottery) will insulate school from the pressures which are induced by social competition. Parents and pupils are playing for keeps and the prize for the successful is very great indeed. Whatever means is used will produce a response from individuals designed to maximise their chances. Currently the idea of assessment by schools or teachers is favoured to replace public examinations. This, of course, will not remove the competition as long as university and college places are out-numbered by capable and ambitious school leavers; nor is there any evidence that new methods will be any more efficient in picking the most able. School teachers are in for a shock when the focus for entrance competition shifts to them from the impersonal external examination.

It is possible that the competition will be dealt with by students themselves; there are clear signs that many secondary pupils are becoming alienated from their schools, and teachers are finding it difficult to have their authority accepted. Along with this the young are increasingly critical of the values on which the system is based.

A second sub-heading called '*National Values*' appears in the Martian report at this point. The report continues:

NATIONAL VALUES

The next question I endeavour to answer is what goals and ideals move these beings in the Australian social structure; what are their aims, beliefs and attitudes; who do they think they are and where do they think they are going; what do they value most? These questions have attracted men of literature more than the social scientists and it is to novelists and historians as well as recent sociologists that I turned for answers. The primary value may be called 'getting on'. This is the value counterpart to occupational mobility and social competition. As we have seen, children are almost invariably destined

for higher levels of education than their parents. This 'education gap' contributes to the juvenile questioning of authority and to the difficulty of communication across generations.

A social psychologist reporting on the form of alienation in Australia's youth has said that in the not too distant future we might see the end of universal formal full-time schooling at about age 16. Otherwise present trends could lead to senior secondary schools becoming reservoirs of discontent. Australia does not yet resemble a number of other technologically advanced countries where the rebellion of youth against established values has become widespread and violent; but, he goes on, studies of dissent have uncovered themes which will become increasingly relevant among the young in Australia as the social consequences of technological change become more widespread. Among these are a tendency for students to indentify with an international body of young people who have humanitarian values; a departure from the values of materialism towards those of more aesthetic and expressive appeal; a feeling of alienation arising from a loss of community spirit; conflict in educational institutions which have a strong academic and authoritarian outlook; the perception of the gulf between a liberal-arts education and the realities of an industrial society; feelings of apathy and privatism as a reaction to stress; a search for authenticity in human relations; extension of parental values from the interpersonal field to social and political concerns. Coupled with these things is a movement away from rationality towards passionate commitment and immediate experience.[12]

Contrasted with ambition are attitudes to authority. Here there is ambivalence: irreverence towards the rejection of authority versus a reliance on government initiative and welfare. On the one hand Australians are contemptuous of authority, even aggressive towards it. The only folk hero is a small time bully and crook called Ned Kelly.[13] A favourite pastime is 'knocking', which means ridiculing both pretensions and genuine achievement without bothering to differentiate between the two. On the other hand Australians are disposed to rely on the government rather than self-control; they like to blame the government (and they have a large number of governments) for the state of the schools, the poor social services, for industrial disputes or for rural recessions. Furthermore, there does seem to be an acceptance of a great deal of restrictive regulation by government, for example, concerning drinking, gambling, censorship and morals. Even university students who, despite a myth of radicalism have been very conservative, accept the right of the community to place restrictions on the freedom of citizens.

The other side of deference to authority is authoritarianism, or the inclination of those in power to use it arbitrarily, not to justify their actions, to pontificate, to use force as necessary, and to denigrate rather than argue. Observers of the Australian scene have commented on these two faces of

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[12]Beswick, D. G., Submission to the Campbell Committee, February 1972, which was published in a condensed form in the *Canberra Times*, April 25, 1972, and will appear in full in *Education News* later this year.

[13]Taft, Ronald and Kenneth F. Walker, 'Australia' in Arnold M. Rose (ed.), *The Institutions of Advanced Societies*, Minneapolis, University of Minnesota Press, 1958.

authoritarianism although the only comparative study is of teacher roles in which it was found that, of teachers in four countries, Australians were marginally the most authoritarian.[14] Studies of trainee teachers in Australia have detected similar authoritarian attitudes, but these are also found to exist in students preparing for other professions.[15] There is evidence that those students who in school submit most easily and readily to authoritarian practices are themselves those who are most likely to become teachers.[16]

Authoritarian attitudes relate inversely to level of education. The accelerating trend to stay on at school (in 1947 only 12 per cent of those aged 15-19 were in full-time schooling, now it is three times that figure) should produce more widespread liberal attitudes.

Contrasted with the value of getting on is that of mateship. This takes many forms: a militant egalitarianism; compassion for the underdog; and demands for social equality, economic security and a fair go for all. The value is one which is frequently attributed to Australians and which they like to attribute to themselves. A verse, often quoted by Australian social historians, illustrates the self-image. It is by a folk-poet called Henry Lawson:

> But the curse of class distinctions from our shoulders shall be hurled
> And the sense of Human Kinship revolutionize the world;
> There'll be higher education for the toilin', starvin' crown,
> An' the rich and educated shall be educated down.[17]

Contrasted with the American version of egalitarianism—that there should be equality of opportunity to get to the top—the Australian version is rather that there should be a fair share for all. In the nineteenth century this sentiment permeated education systems which were planned to maintain a uniform standard across the vast continent. Local and regional variations in *quality*, which characterise school systems in North America and parts of Europe, are almost absent in Australia.

Two eminent Australian social scientists have said that 'egalitarian attitudes have taken the form of militant attempts to eliminate the material and prestige liabilities of the working class. Thus a high value is placed on activities aimed at protecting and promoting the standing of the underdog by abusing privileged or would-be privileged persons. Although middle class Australians are avoiding identifying themselves as workers they nonetheless typically share this militant egalitarianism against authority and prestige figures'.[18]

According to most of the learned critics mateship is on the way out, being replaced by successship and class consciousness. Nonetheless, there

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[14]Adams, R. S. *et al.*, 'Symposium on Teacher Roles in Four English Speaking Countries', *Comparative Education Review*, 14(1), 1970 (whole number).

[15]Anderson, D. S. and Western, J. S., 'State Differences in Authoritarian Attitudes', *Australian Journal of Psychology*, 22(3), 1970: 261-4.

[16]Anderson, D. S. and Western, J. S., *op. cit.* (7).

[17]Connell, R. W., 'Images of Australia', *Quadrant*, XII(2), 1968. Connell notes that almost every social critic since Hancock has cited this particular stanza.

[18]Taft, Ronald and Walker, Kenneth F., *op. cit.* (13)

is still much evidence of this value—in the camaraderie of the bar, in times of adversity, and in attitudes to foreigners. Going somewhat deeper than mateship, there is evidence of compassion for the underprivileged, for example, in responses to national appeals for the relief of suffering following disasters, whether in Australia or abroad.

Despite the neglect of Aboriginals, mateship is evident in Australian attitudes to other races. The race prejudice which helped unify the nation seventy years ago is decreasing and a majority of Australians are now prepared to admit to their country as citizens human beings with non-pink skin pigmentation.[19] This tolerance will increase because it is especially characteristic of the young and of the educated. Even more impressive is the actual absorption of 2.5 million migrants, admittedly mainly European, but including many from the Mediterranean area with swarthy complexions.

When I began my observations in the terrestrial year of 1947 I would have rejected as absurd the idea that the British Australians, who were then 90 per cent of the population, could accept and absorb so peacefully such an enormous alien inflow.

I have been unable to discover whether Australians are moved by any deep religious sentiment. Although more than nine-tenths tell their census man that they belong to a church, and tell their opinion pollsters that they believe in God, Australians are coy in discussing religion and their social scientists have scarcely studied it. All that could be said with confidence is that traditional external signs of religious behaviour, such as attending church and sabbath-observance, are declining. Nonetheless, amongst the young about half attend church at least occasionally, and express no doubt in their belief in God.[20]

(It can be seen that our Martian observer had great difficulty with this section of his report. Once he thought that he had discovered a new male religious cult when he discovered many small groups of men gathered in back alleys and on wasteland on Saturdays and Sundays. These men would form themselves into a circle around the leader who carried sacred objects comprising a small pallet of wood and two coins. At a sign from the leader the worshippers would be silent, raise their eyes to heaven, and then bow in attitudes of intense concentration and devotion, whereupon they would cry out in loud voices 'you bloddy beaut, they're heads'.

In the study of leisure our Martian's task was easier and, indeed, he was led to attribute religious significance to Australians' devotion to sport).

His report continues:

During the warmer months of summer Australians are phototropic. One can find them clustered along the very edges of the continent, exposing their bare bodies to the sunlight. In colder months up to one hundred thousand will

[19]Beswick, D. G. and Hills, M. D., 'An Australian Ethnocentrism Scale', *Australian Journal of Psychology*, 21(3), 1969: 211-255; and, 'A Survey of Ethnocentrism in Australia', *Australian Journal of Psychology* (to be published).

[20]Mol, J. J., *Religion in Australia: A Sociological Investigation*, Melbourne, Nelson, 1971; and Anderson, D. S. and Western, J. S., 'Denominational Schooling and Religious Behaviour', *Australian and New Zealand Journal of Sociology* (to be published).

be found gathered at stadiums for the spectacle of two teams of gladiators, possibly representing good and evil, contesting the right to a leather ball. This cult is particularly strong in the southern cities.

Elsewhere there is a trend away from team sports to less organized leisure. In the State known as New South Wales the outstanding leisure phenomenon is called Leagues Clubs. Here ordinary citizens enjoy facilities which in other countries are available only to the wealthy. The clubs now have a membership of about one and a half millions, more than half the adult population of the State. Financed largely from a gambling device called poker machines, the annual profits are about $140,000,000. Another $30,000,000 provided to the State as tax comprises one-tenth of the State's internal revenue. The clubs are noted for their democratic control, their open membership, and their political and religious neutrality. These clubs will have increasing significance in a society which is becoming more and more obsessed with leisure. The passion for gambling, which enables these clubs to provide such lavish services, illustrates another Australian value and national characteristic. Fatalism, combined with egalitarianism, is conducive to gambling, especially gambling which requires no skill such as lotteries, poker machines, raffles, sweepstakes and even betting on the T.A.B. All of these are extremely popular and legalised forms of gambling in Australia. Gambling creates a sort of equality for it mocks skill, merit, qualifications and ability as the gambler submits himself to the laws of chance.[21] The losers, who by the laws of gambling must be a majority, are joined in a fellowship sharing the common fate of bad luck.

The third section of the report is headed *'Institutions which Mould the Australian National Character'*. The report continues:

INSTITUTIONS WHICH MOULD THE AUSTRALIAN NATIONAL CHARACTER

All members of society pass through two institutions which between them are responsible for transmission of the culture from one generation to the next, and for the maintenance of social structure. The first of these is family: a conjugal unit comprising man and wife and children. The role of the wife is most significant in the upbringing of children and the term matriduxy has been invented to describe the Australian family.[22] This means mother-leadership, or that the mother exerts an overwhelming influence on the family and the father is largely indifferent. Compared with other countries the Australian father plays a minor role in making family decisions and in providing emotional warmth. He is disinclined to displays of affection, to providing shared play and help, and to demonstrating his love and solidarity with mother. Australian mothers are less educated than the fathers and it may be that the valuing of education as the doorway to secure jobs, rather than for its intellectual content, is specially nurtured in mother-led Australian families. A recent trend has been for wives to take employment outside the home,

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[21]The observations on Leagues' Clubs are from Caldwell, G. T., *Leisure Co-operatives*. Ph.D. thesis, Australian National University, 1972.

[22]Adler, Dan L., 'Matriduxy in the Australian Family', in Davies, A. F. and Encel S. (eds.), *Australian Society: A Sociological Introduction*, Melbourne, Cheshire, 1965.

and in another decade the workforce will be almost half female. Prolonged absence from home will alter the relative influence of mothers and it may be that additional demands will be placed, if not on fathers, on schools which are the second institution through which all members of the society must pass on the way to adulthood.

Australians have recently come to expect a great deal from their schools. A vast proportion of the national resources is invested in them. As we have seen, students are remaining at school longer than ever before. There is continual public debate about the efficacy of education and about the correct allocation of resources. When difficult social problems occur schools are called on to remedy them. The social pathology of a country may be estimated at any time by the demands being made on its schools. Currently in Australia there are calls for drug education, driver education, sex education, moral education, education for citizenship, education for leisure and, indeed, education for life.

It is not known how effective schools are in forming values because few studies have been made in this domain. The problem is complex because there are conflicting expectations of what schools should be doing. Civic leaders expect that schools should perpetuate the social order and provide a skilled workforce; parents want examination passes, scholarships and negotiable skills; educationists emphasise personal development, intellectual skills and social equality. Sociologists see the system rather than its content and have noted that the structure of schools parallels the main groups in society. Grouped in this school or that are upper class and lower class, religious and less religious, rich and poor, girls and boys, migrant and non-migrant, bright and dull, aboriginal and non-aboriginal. The pluralist school system illustrates the ambivalence in Australian values of egalitarianism and elitism; that is, the tension between believing that all members of a society deserve equal respect as human beings, and believing that respect should be given to those who hold elite positions. The latter may be dissected into valuing superiority which is due to achievement, and valuing superiority due to status or position alone. These values of egalitarianism and status produce demands on schools which are difficult to reconcile and sometimes are in conflict. Examples are stress on academic against stress on technical training, equality of opportunity versus the nurturing of talent, comprehensive education versus streaming, freedom to experiment versus nurturing a social elite. Currently the wise men who write about these things do not believe that egalitarian values will ever predominate to the extent that the diverse school system, with its obvious elitist elements, will ever be completely demolished.

To illustrate this daring prediction our reporter included an anecdote from Ian Hansen's book 'Nor Free, Nor Secular'.[23] The point will be seen by Victorians but may elude Martians, much as it does Australians north of the Murray. The story concerns a student interviewer from the political science department in the University of Melbourne. As part of a class exercise on political socialization he had to tape-record interviews with a number of children. As a start he tried out his 8-year-old brother.

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[23]Hansen, Ian, *Nor Free Nor Secular*, Oxford: Oxford University Press, 1972.

'What party do Mum and Dad vote for?'

Long pause.

'Er um, Melbourne'

'No stupid, Melbourne's a football team. What political party do they support?'

Long pause.

'Er um, Scotch'.

The final page of the report was headed '*Recommendations*'. Tourists from Mars will enjoy Australia and will be adequately looked after by a tourist industry which is booming. Investors are also welcomed, but they should move in quickly as a new nationalism may lead to restrictions on extra terrestrial capital. However, despite the legend of mateship many migrants have a hard time in Australia and I advise against migration from Mars at this stage. The country is changing rapidly and it is quite possible that more compassionate social policies will be introduced. On the other hand competition for scarce resources may arrest the decline in ethnocentrism. I recommend therefore that we study the country for another twenty-five years. I wish to apply for a further research grant for this purpose.

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A colleague, to whom I gave this paper to read, made some very helpful suggestions but asked if it could not be tied more explicitly to the theme of priorities in Australian education.

This was not part of the brief; and anyway it is difficult:

a) because there are contradictions in our Martian's report,

b) because there are some problems for which I can see no solutions and

c) because solutions depend on one's own values, and I am not convinced that this is a consensus here.

Nonetheless, if I don't declare myself now I know that my colleague will ask me to do so later.

So here, in cryptic form, are five questions as seen by one sociologist.

1. Is it inevitable that educational level be associated with wealth so that only a minority of the poor get into the best schools and to university?
2. Can education help break the poverty cycle so that the children of the poor and hopeless have hope?
3. Are we over-schooling and under-educating?
4. Are the charges of authoritarianism in schooling justified?
5. Can we eliminate the tyranny of testing?

Appendix

OCCUPATION OF STUDENTS' FATHERS AND MALE POPULATION SAMPLE AGED 45-54

	University (4 professional faculties, n = 3,129) %	*Male Population (45-54 age, n = 624,615)* %
Professionals	23.5	5.6
Managers	26.4	11.9
Clerical and Sales	18.6	13.5
Farmers	6.4	8.7
Skilled	11.9	22.3
Semi-skilled	3.1	11.3
Unskilled	7.6	26.1
Miscellaneous	2.5	0.6
TOTAL	100.0	100.0

The university data are from a study of four professional faculties in six universities — first-year students in 1965 and 1967. The population data are from the 1966 Census. For details see Anderson D. S. and Western J. S., (6).

EDUCATIONAL CONSEQUENCES OF SOCIAL CHANGE

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The first paper in this series for the 1972 A.C.E. Conference was "Sociological Overview of Australian Society." As members will undoubtedly remember the paper was actually prepared for the Supreme Academy of Social Sciences of Mars by the Martian correspondent in Australia. The paper was actually read by Mr. D. S. Anderson of the Australian National University, which itself has been described by other universities as possessing some extra-terrestrial properties.

Unfortunately I am unable to call on such specialist advice for this topic. Perhaps this is as well from one point of view since the suggested outcomes should have their roots firmly bedded in Earth.

Our Martian observer identified four aspects of social structure which interacted with educational opportunity: these were social class, sex, race, and age. The fact that it is only for social class that individuals could alter their own life position, and that education is the main key to such a change, was seen as providing the incentive for an intensity of social competition in education which fixed the structure in ways quite unrelated to the stated aims of education.

We shall find this conflict right through the consideration of our present topic. Much of our structure and practice in education has been in fact decided by external pressures, even though we find later justifications for them in terms of aims. In making an attempt to disentangle these aspects our necessary tasks are: to identify the various aspects of change which affect education, to analyse the nature of the effects which have flowed in consequence and to find those areas in which we may make realistic decisions in terms of purpose, methods and organisation.

It is not appropriate to allow some sort of social determinism to operate, fixing our educational processes through externals, without at the same time seeing where education may iself react upon social change.

1) AN UNBREAKABLE CONNECTION—EDUCATION AND CHANGE

By its nature, education must take account of change. Education is concerned with initiation—into a community and into a culture. The nature of each is not only subject to, but in a continuous state of, change. Regardless of the difficulties involved, education is forced to involve itself in predictions of the directions of movement in society, and in culture.

This process involves difficulties of two kinds. The first arises from the fact that while some changes are predictable others are not, but occur in a totally unforeseen fashion. The second arises from the danger that some predictions tend to be self-fulfilling.

Consider first the difficulty of predictability. It is possible under certain assumptions, to chart the expected growth of population and to list the possible fluctuations arising from variations in those original assumptions. Some developments, however, are of a quite different kind and can not be anticipated by any projections. For example, the development of the motor car, or of the computer, introduced quite new elements in society whose effects can still not be gauged, and which could not have been predicted beforehand.

The other danger is of the self-fulfilling prophecy. It is true in many fields, but particularly so in education, that a strong expectation can in fact influence the result. It would seem probable that this holds to a considerable extent, in relation to school performance.

The one certainty in all this is that education must plan its reaction to change.

Since it is not possible to predict accurately, and since prediction itself carries dangers, rather than planning for specific developments we must learn, and teach others, to operate in a constant condition of change. It is necessary to consider some broad areas of change and the impact that these have on schooling, if we are to determine effects, and also appropriate reactions.

2) THE ASPECTS OF CHANGE WITH THE GREATEST IMPACT

We shall consider four broad categories in brief terms only.

a) Knowledge

One of the clichés of our time is the 'Knowledge explosion' but that trite term disguises a reality with which we have so far failed to come to grips. It is most obvious in the natural sciences and mathematics where the developments of this century have exceeded the sum of the contributions of the many centuries before. The applications of these developments, too, have increased in every part of life and, more significantly the time-gap between the initial idea and its practical application has compressed in a striking fashion. An application that would once have taken two to three generations to develop, now reaches fruition in 3-4 years or less.

The development in recent years of the social sciences has been equally striking. From the traditional studies of history and philosophy, we have seen the development of political science, economics, geography, archaeology, anthropology, sociology and psychology. We have seen, too, the development of theoretical means through mathematics, and electronic means like the computer, through which these studies make a wider and more profound impact on human life.

Our recognition of these developments in education is extremely slight.

b) Employment.

The shape of the employment structure has changed dramatically. At the beginning of the century there was a small professional and managerial

group, a slightly larger middle management group, and a much larger unskilled group. The proportion of the work force in the final group has increased strikingly, as has the proportion in the middle group, with the great reduction being in the unskilled category, the majority now being in the central group so that the shape of the structure has changed from a pyramid to an urn form.*

This has not been the only change in this area. Another has been the tremendous increase in vocational choice, and also in vocational mobility. A bewildering variety of possibilities is now available for choice. Perhaps related to this, as well as to technical change, there is a much greater turnover in jobs, so that one person is much less likely than formerly to hold an occupation for life. The second change is in relation to productivity, with chemical, mechanical and electronic developments greatly increasing the average output per person in most areas of the work-force. The dimension of the change is a 40-fold increase in many area of productivity.

c) Communications.

We have almost come to take for granted the developments in communications, without reflecting on the profound impact being made. Within the life-time of most adults, the range and rate of communication has increased dramatically. For centuries, the main exchange of information was through speech. This was augmented by painting and sculpture, and then by writing, with a major change coming from the development of printing in the 1400's. This enabled communication on a wide scale but the rate of spread was still slow, messages being carried at not much more than walking pace. The last 100 years has changed all this, with the development of photography, the telephone, wireless, motion pictures, the microfilm and television. The storage and transmission of information is now a radically different process and the computer opens up the possibility of vast information banks answering requests from any point in the world and providing required data immediately in a variety of forms.

This change is so profound that it represents a qualitative difference rather than one of quantity. Its importance is not only in relation to the range and rate of spread of information, but in the diversification of the sources. During the period of limited information, the family, the church and the school occupied special positions as representing key sources and thus possessing a peculiar authority. With the diversification of sources, there is a change from a vertical to a horizontal information structure which has its effect also on the authority structure.

d) Values

The least tangible and most fundamental area of change is in relation to that spectrum of attitudes and beliefs that we call values. This is related to the other areas we have listed. The growth of knowledge, the changes in employment, the spread of communication have caused basic shifts in

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* cf. Galbraith, J. K. Employment, Education and the Industrial System, in *Proceedings of the International Congress on Human Relations*. Melbourne, 1965.

society, which are expressed most fundamentally in terms of values. The social structure of our society has changed—not merely in relation to the place of institutions such as the home, the church and the school, but in relation to the assumptions on which these are based.

Our purpose now, however, is not to trace these changes in depth, but rather to indicate the effects they have had, and are having, on schools and the types of reaction which need to be considered.

3) THE EFFECTS ON SCHOOLS

We will consider under this heading those changes which have come as a direct or indirect result of developments listed above, rather than the planned reactions which will be considered in the final section of the paper.

i) Increased Retention

The most obvious effect is at the secondary and tertiary levels with the greatly increased participation rates. Professor Borrie in Paper 3 for this conference shows that the participation rates of those aged 17 and over, expressed as a percentage of those aged 17 years, changed from 11.8 in 1954 to 31.7 in 1970 for boys, and from 6.8 to 23.7 for girls, throughout Australia. These averaged figures hide considerable differences and the rates for those 17 and over in the A.C.T. were 59.0 per cent for boys and 41.3 per cent for girls. At the moment there seems to be no reason why this pattern of increasing secondary retention should not continue.

The same picture holds for tertiary education. The Martin Committee* estimated that the 12.1 per cent of 17 - 22 age-group involved in tertiary education in 1963 would rise to 20 per cent by 1986. In Borrie's view the figure for 1986 probably under-estimates the demand.

ii) Increased Size of Institutions

Another obvious effect, in addition to the development of many new secondary schools, colleges and universities, is the growth in size of the institutions.

The comprehensive secondary school, with its much larger proportion of older students, has developed as a much larger school, frequently in the 1000-2000 range, than the selective high school. This development took place in order to give a wide variety of course opportunities with reasonable economy of staffing, and also to give access to expensive facilities, such as a central library, assembly hall, gymnasium, science laboratories, audio-visual facilities.

Similarly the colleges and universities have grown in size, with 4000 students being seen as a minimum for a university and with the norm being in the 10,000-15,000 bracket.

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* Commonwealth of Australia. *Report of the Committee of Tertiary Education in Australia to the Australian Universities Commission*. Vol. 1, pp. 33-34, 1964.

iii) Increased Impersonality

The changes in participation and size are easy to document: the increase of the impersonality of the institutions is not, even though it seems a reasonable inference.

Unfortunately there is a dearth of studies of the effect of size. One useful and illuminating study was reported by Campbell*, on the effects of secondary school consolidation, in which small school pupils achieved much wider participation, obtained more satisfaction in their participation together with a heightened sense of personal responsibility and obtained more satisfactions associated with physical well-being, acquiring knowledge and developing intellectual interests, developing a self-concept, and zest for living.

Certainly there is evidence of a good deal of hostility developed by many students in secondary schools and many in universities, towards their own institutions. It is much too simple to explain this by 'impersonality' but this seems likely to be a factor and the hostility itself, whatever the causes, is an effect which needs to be considered carefully.

A recent statement in Woroni reflected one student's view of his school.

> *'In the authoritarian structure of the high school, students are trained not to question, not to investigate but merely to accept decisions which they have no part in making. There is no doubt that the high school is one of the most unpleasant institutions in our society.'**

This is an extreme view but it is not an isolated one. A recent investigation in A.C.T. schools by Anderson and Beswick,** showed that a considerable amount of dissatisfaction was felt by secondary students towards their schools, even though the physical conditions were as good as any in Australia. In the survey, 90 per cent of students who stated an opinion, expressed a preference for change from 6-year high-schools to an organisation based on 4-year high-schools plus two-year colleges. The major advantages of the change seen by most students were:—

— availability of a greater range of subjects, including socially and vocationally oriented courses;

— teachers able to treat students as adults;

— less authoritarian discipline, more freedom in non-academic matters.

iv) Increased Period of Attendance

This may seem too obvious to mention, as being simply another way of describing increased retention. In terms of its effects on individuals it is quite significant: the change from a period where most people had 6 years of education, to one where most have 12, and many 16 or more

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* Campbell, W. J. Effects of Secondary School Consolidation, in *Scholars in Context*, Campbell, W. J. (ed.). Wiley Int. Edition, 1970, pp. 67-81.

* Student Movement, in *Education, A Woroni Supplement*, Woroni, 6 September 1971.

** Anderson, D. S. and Beswick, D. G. *Canberra Secondary School Student Survey 1971*. First Report. Mimeographed Report. Education Research Unit, A.N.U. April, 1972.

years, in succession, is an important one. In the A.C.T. survey quoted above nearly half the students who planned to go on to tertiary education said they would prefer a year or two at work before continuation. An equal proportion said they would prefer a combination of school and work as against their present full-time attendance.

It may be that these attitudes are also expresed indirectly in much of the unrest which occurs at the university level. Education is too often seen by students as a process which separates from society and the experiences which will be helpful in their daily living.

v) A Different School Population

The change in the secondary and tertiary population is obvious enough in terms of numbers. It is more important in relation to a number of other characteristics. Firstly, these stages include a much wider range of abilities than had been the case. Secondly, they include a much wider range of social backgrounds, including many without any tradition of support for education. The concept of a highly motivated, print-oriented group, habituated to work for distant rewards is no longer relevant. A further change of some impact is the earlier arrival of physical maturity. Without any ascribing of causes, the period of compulsory education has seen the lowering of the age of puberty by about 3 years.* This earlier maturity comes at a time when personal and economic independence is being further postponed.

The population has changed. It is doubtful if our institutions and procedures have changed to match.

vi) Less Acceptance of Authority

We are generally less willing to accept authority *as* authority, regardless of circumstances. We require reasons for acting in certain ways rather than prescriptions. This attitude has been passed on quite consciously to the student generations so we should not find it disturbing when the effects of our teaching are demonstrated.

Again, our tradition of operation lays well behind the recognition of existing attitudes and modes of behaviour.

vii) Greater Impact of Personal and Group Choice.

The most important factor in the quality of life in a society such as Australia is the effect of individual and group choice. Our society possesses the means for offering adequate opportunities for all—with regard to education as well as other aspects of community life. That we do not succeed in doing this, can be partly attributed to a lack of clarity on priorities, partly to a different order of priorities, but not to lack of choice. Personal choice is now the major factor in health, rather than external organisms. It is the major factor in social problems, such as

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* Tanner, J. M. *Education and Physical Growth*. London University Press 1962. London.

traffic accidents and drug abuse. It is the major factor in personal and social relationships. We have, too, wide scope for choice in vocations.

In spite of the key role played by personal choice in deciding the quality of life, there is not sufficient recognition of this role in our education.

viii) Greater Demand for Involvement

A further characteristic of the secondary and tertiary education population is the desire for participation and involvement in the process of their schooling. Again this is a logical result of the emphases of our society and of our schools.

ix) Higher Levels of Expectation and Aspiration

The growth of opportunity has been more than matched by increased aspiration and expectation. This relates to many aspects: education, vocation, travel, income—the whole quality of life. As opportunities increase, expectation increases more so that to some extent at least, dissatisfaction will be a continuing element.

4) OUR REACTIONS TO CHANGE

It is not enough simply to catalogue what change does to us, as though we were helpless to alter it. Our response needs to be planned and deliberate. It also needs to be continuous so that we may adjust to the inevitable miscalculations. Equally, it can not relate simply to isolated parts of the system, but to the whole.

We can consider briefly the nature of desirable reactions in three areas, purposes, structure and control.

Our statements of purpose have been broad enough to include within their ambit all possibilities for change. Indeed this is one of the difficulties—they have been so broad that they have failed to give a sufficient guide to practice. Our practices have defined our real aims, rather than our published statements. This is a dangerous situation—misleading to students and the community alike.

The first need is to develop realistic statements of purpose, statements which can be justified with respect to practices. It is only then that it becomes useful to extend our stated aims to include those developments necessary to take account of change. These steps should take place with the active participation of the community so that the schools represent the most advanced and forward looking expression of their community's aspirations and intentions.

Many of the possible emphases are already implied in what has been said. We are committed to extending the opportunities and achievements of a total population to the maximum degree. At this stage we must admit a lack of the knowledge of how best to do this in many instances. We do not as yet know with any confidence how to solve the problems set by differences in social class, in culture or in race. We do know, however, enough to begin to operate more realistically in a general preparation for change. The emphases

here need to be both cognitive and affective. We need to prepare people for the development, evaluation, storage, retrieval and use of information, rather than for the repetition of fixed information. We need also to prepare students for decision-making in a variety of fields. This involves more than information and technique, and includes attitude and approach. However it can be done once we acknowledge the importance of the process and are prepared for the radical changes in teaching methods, facilities and school organisation which follow.

Since it is not possible here to discuss the possibilities over the whole range, we shall look at a more limited area—our response to the size and impersonality of institutions and to the growing hostility of students to them.

One possibility is in terms of structure. At the secondary level the large comprehensive school, spreading over six years, is seen as the best solution. It seems very doubtful that this is so. The spread of ages, abilities, interests and motivations is forcing us to larger and larger sizes—just as we are beginning to acknowledge some of the disadvantages of size.

It is possible to reduce size in a number of ways, e.g., through organisational division or through reduction of the age-range. Whatever process is used it is clearly desirable to preserve the level of facilities and the range of choices available in the large school. One possibility is the grouping of many small schools on a single large campus with very well-provided central facilities. To have any useful effect this must be more than a nominal division, but must be based on, or develop, some real community of interest. A further possibility is a different division based on ages. For example, a 4-year and a 2-year institution could replace a 6-year school. This proposition is currently being considered in the A.C.T. and has strong support from secondary students. Such a division can retain the variety of course choice available, but with much smaller numbers of students. The two new institutions can each have the opportunity to develop approaches more suitable to their particular age-groups. There are, of course, other ways of doing this and perhaps the best approach would be for us to try a number of different solutions. To do this, however, presents very real difficulties with facilities—as these tend to be suitable to one organisational pattern only. One link which should be experimented with, could be gained by providing a large resource centre plus other facilities which could be shared by one or more schools and a number of community agencies, e.g., public library, youth clubs, further education.

A further need to explore is the strengthening of the link between school and community—or, to put it another way, the reduction of the gap between the student and the life of his society. We have mentioned the growing prolongation of school life and the student's expressed need for breaks in schooling. We have set up a tread-mill for students—from pre-school, to primary, to secondary, to tertiary schooling. It runs continuously and is hard to dismount for fear of being unable to rejoin.

We could ease this pressure in a number of ways. One would be by making it much easier to leave school for work, and correspondingly easier to return to school from work. In a sense it is similar to the sandwich courses which

have proved effective elsewhere—successive slices of school, work, school, work. It would make the periods of schooling for many shorter but more frequent. A related possibility is that of part-time schooling—with a combination of work and study.

One further suggestion may be worth floating—even though it may seem extreme. This is to open up the opportunity for a new kind of National Service —let us call it community service, operating for periods of up to 3 or 6 months. The separation of the student from his society has become such a universal complaint that some drastic remedies such as this need to be considered. The important elements about such service are that it should be a matter of choice, that it should be of value to the community, and that it should be paid. Many suggestions offer themselves, conservation task forces, staffing national parks, hospital aides, teaching aides in inner city or outback schools. An imaginative approach might well produce a scheme of real national and personal value. The key to success would lie in the co-operative efforts of such bodies as government agencies, trade unions, employer's organisations. There is a current phenomenon which is on the increase: able students opting out of the educational process to 'go on the road'. This is an indication of a desire which could be used creatively and with value.

It may seem that these suggestions would change the very nature of a school in unacceptable ways. They would certainly represent a profound change in the way we conceive education. Some such change may seem inevitable. The diagnosis and the remedies put forward by Illich and others of the 'de-schoolers' are very much more radical than anything considered so far. Illich says:—

'So persuasive is the power of the institutions we have created that they shape not only our preferences but also our sense of possibilities. We have forgotten how to speak about modern transportation that does not rely on automobiles and airplanes. Our conceptions of modern health care emphasize our ability to prolong the lives of the desperately ill. We have become unable to think of better education except in terms of more complex schools and of teachers trained for even longer periods . . . . .

*We have embodied our world view into our institutions and are now their prisoners.'**

And further:—

*'Our options are clear enough. Either we continue to believe that institutionalized learning is a product which justifies unlimited investment, or we rediscover that legislation and planning and investment, if they have any place in formal education, should be used mostly to tear down the barriers that now impede opportunities for learning, which can only be a personal activity.'***

Illich's analysis and solution may be too radical to gain wide acceptance: what is certain is that we must look with equal penetration at our own in-

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* Illich, Ivan. Outwitting the Developers. *New York Review*. January 7, 1971.
** Illich, Ivan. Schooling: The Ritual of Progress. *New York Review*. December 1970.

stitutions, and keep open a wide range of possibilities for future development. 'More of the same' in education could be a prescription for disaster.

Illich's recommendations are only one set amongst many recognising the need for a fundamental re-thinking of the ways in which we develop our institutions to achieve our purposes. Recent developments in the U.S. presented three distinct 'career education models' as possible solutions to the problems of vocational education. These models were seen as providing everyone with the chance to acquire skills to enable him to find employment. These programs identified three possible variations.

1. **School Based Programs.**

   Using traditional institutions but with emphasis on the identification and examination of occupational roles, and with a specific relation between the school experiences and the preparation and performance of persons in selected careers.

2. **Employer Based Programs.**

   Satellite academies in office and industrial buildings sited near the work centres of groups of students who could then pursue combined work-study programs.

3. **Home/Community Based.**

   The use of television and radio as a means of linking homes to an education program, to extend the opportunities of women.*

The nature of the programs recommended here is less important than the varied institutional developments used for them. The essence of our response to change is that we break the bonds on our thinking. We have allowed ourselves to be confined, and thus have confined others, by limiting the possibilities for change to the limits of our present institutions. It is not our institutions which are sacred but the individuals and the society they are set up to serve. We are faced with the task of re-stating our purposes, realistically, to open up the widest range of opportunity for today's and tomorrow's students. If this task involves a re-definition of our institutions, as I believe it does, we must face this with real re[illegible]ution or fail in our opportunity.

* Reported in *D. & R. Report*. Volume 1. November 4, 1972.

FINANCIAL AND HUMAN RESOURCES

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Contemporary industrial societies are the most complex social systems ever devised. The degree of their complexity varies proportionately with their affluence, and by and large the degree of their affluence determines the life cycles and life styles of the individuals within them: the qualifications each is expected to acquire in order to become a contributor to the complex productive organization in which he must live; the level of income required to meet both his own domestic requirements and his contribution through taxation to the welfare of society as a whole as interpreted through the policies of his government; the expectations he has for the duration of his working life; and the preparations he must make for the years that he will spend in retirement essentially as a consumer rather than as a producer.

Increasingly important over the past fifty years, and particularly since World War II, have been two phases of that life cycle: the increasing level of educational requirements for almost every type of occupation, and therefore the increasingly late entry into the workforce, and, as a corollary of this, the increasing proportion of income earned once entry to the workforce has been achieved which has to be invested for the successful education of the next generation. The transmission of these educational opportunities to the next generation has become so complex and so costly that the achievement of a situation approximating to equality of opportunity requires the socialization of educational investment, its financial support from general taxation and the redeployment of these funds in terms of assessed educational needs and assessed intellectual and occupational capabilities of the dependent sectors of the population at primary, secondary and tertiary levels.

The management of this educational operation has become one of the most costly and complex questions to be undertaken by governments, second only to defence and greater than the effort required to sustain levels of health and welfare commensurate with expectations of life of some 70 years from birth — expectations unique in human experience and themselves a product of the technological and scientific revolution of the last two generations.

The complexity of managing this operation is exacerbated in Australia by what Geoffrey Blainey might refer to as 'the tyranny of distance', which is perhaps the fundamental basis of a federal system which leaves the basic responsibility for education with the States, but with just sufficient power available to the Commonwealth to exert its influence directly or by a benevolent response to the ardent supplications by mendicant States as the costs of education continue to escalate at an even faster rate than the general cost of living. And, as if this is not enough, the pattern in Australia is further complicated by the role of the private school (in particular the Roman Catholic School, and within the private system particularly at the secondary level with regard to both Catholic and major Protestant faiths), which role both challenges the stereotype of Australia as an egalitarian society and

makes education at times a football kicked around for political rather than well-researched educational goals.

Whether examined from the angle of economics, ethical and social values, the acquisition and transmission of human knowledge, or the acquisition of skills and aptitudes to make a life-time contribution to the nation, the level of inputs to the education industry is now so high that efficiency in educational management is a national necessity. As we are no longer a subsistence economy, the attainment of efficiency means adequate finance, but as Professor Mathews has emphasized, the management of education involves a series of complex decisions about resource allocations, all of which need to be made *in the light of the educational goals which they are designed to serve.* 'Too often in public discussion the problem of educational finance is assumed to be one merely of making more money available for a particular purpose. It is at least important that we turn attention to the task of ensuring that the most effective use is made of the resources which are committed to education.'[1]

The one certain statistic about education is that it is becoming increasingly costly in *real* terms. It has been estimated that during the twenty years from 1948-49 to 1968-69, private and public expenditure on education in Australia increased from 1.7 to 4.1 per cent of the gross national product; or from a total outlay of $74 million in the earlier year to $1,415 million in the latter year.[2] It is important to realise that a substantial part of this increased outlay was required to meet changing demographic factors alone, for these years saw the transition through the nation's educational streams of the products of the 'baby boom' that followed the Second World War; but in addition the outlays in education had to cope with three factors: the increasing participation rates of young people above the age of 15 years in secondary and tertiary education, the increasing cost per student particularly at tertiary levels, and the major capital outlays involved in building new institutions and in reconstructing and modernising old institutions that very often had not been touched since the stagnant years of the nineteen-thirties. In short, education and the knowledge explosion became integral parts of the dynamic expansion that transformed so much of Australia's social, economic and cultural structure in the post-war world.

By far the greatest part of these expenditures was a charge on the public purse, as is suggested by the following figures relating to outlays for educational purposes on current goods and services and capital.[3]

	Public Expenditure	Private Expenditure
	$M	$M
1948-49	59	15
1958-59	304	68
1968-69	943	172

[1]Mathews, R. (1971) 'Financing Higher Education', Ch. 6 in G. S. Harman and C. Selby Smith, (eds.), *Australian Higher Education, Problems of a Developing System*, Angus and Robertson, Sydney, p. 105.
[2]Mathews (1972), p. 75.
[3]Adapted from Mathews (1972), p. 75.

In all, the public authority expenditures relating to education now amount to about a quarter of total public authority current expenditure on goods and services, compared with the corresponding figure for defence and repatriation of about a third, and for public health and welfare of about one sixth.

Thus, education is big business indeed, and big business affecting about a third of the total population, with every indication that this proportion will increase rather than decrease. Moreover, the expenditures on education are involving both States and Commonwealth in an ever increasingly complex financial web. Primary schools remain the largest single unit in financial terms but the costs of secondary and tertiary education have increased at very much faster rates over the past twenty years and may indeed soon overtake the primary institutions if the trend in higher participation rates continues. The other striking feature has been the increasing involvement of the Commonwealth, whose outlays on current and capital expenditure increased between 1948-49 and 1967-68 from an estimated $1 million to $142 million.[4] There is a tendency to think of Commonwealth expenditure as relating primarily to the tertiary level but already the Commonwealth is deeply involved with the secondary systems of the nation. Between July 1964 and June 1971 the Commonwealth paid over $80 million in science laboratory grants, of which over $19 million went to Roman Catholic schools, $10 million to other private schools, and about $51 million to government secondary schools. Ten thousand secondary scholarships are also given to assist students to complete the final two years of secondary schooling, and Commonwealth per capita grants to independent primary and secondary schools in 1970 totalled $25 million. In addition, of course, the Commonwealth carries the cost of education in the Australian Capital Territory and in the Northern Territory.[5]

The cut up of the Commonwealth's education cake was seen by Mathews for 1969-70 as follows (figures in $ millions):

Direct Expenditure in Commonwealth Territories (rounded to one decimal place).

	$M	%
Tertiary	28.5	11.4
Non-tertiary	35.7	14.3
	64.2	25.7
Payment to States		
Tertiary	104.7	42.0
Non-tertiary	43.5	17.4
	148.2	59.4
Scholarships and Allowances		
Tertiary	24.3	9.7
Non-tertiary	12.8	5.1
	37.1	14.9
Total Commonwealth Expenditure	249.5	100.0

[4]Mathews (1972), p. 78.
[5]Department of Education and Science (1971), *Government Grants, Allowances and Subsidies for Primary and Secondary Schools and their Pupils*, Canberra.

In 1967-68 the State expenditures on education from consolidated revenue and other non-loan funds were:[6]

	$M	%
Primary education	216.6	36.1
Secondary education	169.8	28.3
Teacher training	41.5	6.9
Transport of children	28.3	4.7
Administration	15.6	2.6
Total Education Department	471.8	78.5
Technical	57.5	9.6
University	53.1	8.8
Other	18.3	3.0
Total	601.7	100.0

Now the mere listing of these very considerable sums, or their expression as a proportion of the gross national product, is not a very meaningful exercise. In theory the figure could be raised by a per cent, or even two per cent if such a policy were felt to be a good national investment. It might be done by reducing defence expenditure, by spending a little less on transport and communication, or even by a modest increase in taxation. But just because changing the investments in education now involve such a complicated network between States and Commonwealth and between public and private sectors of the economy, clearcut political decisions are difficult and almost any decision inevitably involves value judgments and highly charged emotions, both secular and religious

One thing does seem certain, namely, that educational costs, expressed as a proportion of the gross national product, will almost certainly go up and not down. Another almost certainty is the distribution of expenditure over the various educational sectors will continue to increase at all levels; and a third certainly seems to be that the Commonwealth's role in educational expenditure will increase rather than decrease. The significant question then is: will such increases in expenditure and such changing patterns of expenditure lead to increased efficiency; or, in other words, will it necessarily lead to increased quality in the human resources of the nation, which many would claim to be the primary objective of these vast and increasing expenditures.

For the rest of this paper I shall comment on some of these aspects relating to the *human* rather than financial resources.[7]

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[6]Mathews (1972), pp. 78-80.

[7]The rest of this paper draws heavily upon my recent published article, 'W. D. Borrie (1972), 'The Demography of Higher Education', in G. S. Harman and C. Selby Smith, (eds.), *Australian Higher Education, Problems of a Developing System*, Angus and Robertson, Sydney, pp. 55-72.

The first point to be emphasized is that, in terms of population structure, Australia has at last pulled out of the effects of the great depression of the 'thirties, which lowered birth rates to an all-time low level and created great deficits in the nation's workforce all through the 'forties and 'fifties. While this had a most deleterious effect upon the output of teachers, its effects with regard to the supply of pupils was rendered relatively slight because of the large inflow of immigrants and, even more importantly, because of a revolutionary change in marriage patterns (resulting in younger marriages and almost universal marriage) and relatively high fertility. Birth rates were sustained around 21 and 22 per thousand of population, except for a downward movement to about 19 in 1963-64.

Consequently, the number of young people attaining school and university age continued to increase all through the 'forties and 'fifties. The baby boom hit the primary schools in the early 'fifties. Then it moved through the secondary system of the nation: in the seven years July 1954 to June 1961 secondary school children increased by 311,600, or by 68 per cent. Then the wave hit the universities, with students rising from 57,700 in 1961 to 116,800 in 1970.

These increases were the result of a combination of demographic factors and rising participation rates. In purely demographic terms the worst of the bulge has now grown past the educational system, and because there was a distinct drop in births from a peak of 239,986 in 1961 to 222,626 in 1966 there is a breathing space right now in the primary school systems which will also give some quantitative relief through the secondary system in the immediate future.[8] *But*, the children born in the post-war baby boom have now entered the marriageable and child-bearing age groups and consequently, even although age-specific fertility rates appear to be falling slightly, the *numbers* of births are soaring upwards again and seem likely to go on doing so for some considerable time into the future. Two very simple sets of figures illustrate these points. First, consider the prospective future supply of parents even without any future immigration by examining the age distribution of the population at June 30, 1969, from ages 35-39 to 0-4.

35-39	732,302	Deficit cohorts
30-34	751,637	
25-29	840,217	
20-24	1,038,444	The front of the 'Baby Boom' Generation
15-19	1,093,724	The Plateau
10-14	1,159,934	
5- 9	1,232,852	
0- 4	1,164,416	Children of the 'Baby Boom'.

[8]For a discussion of these factors in greater detail see W. D. Borrie (1970), 'Demographic Trends and Education in Australia', in G. W. Bassett, *Planning in Australian Education*, Australian Council for Educational Research, pp. 197-226.

Secondly, consider the numbers of births since 1966:

1966	222,626
1967	229,296
1968	240,906
1969	250,176
1970	257,516
1971	276,000

With immigration continuing at about present reduced levels (yielding a net intake of about 80,000 a year) Australia could be topping 300,000 births by 1976.

The implications of these purely *demographic* factors for educational planning would seem to be:

(1) We have been enjoying a brief respite from growth in primary schools—the first one for over 30 years—but after the 'seventies the numbers will be kicking up again. *Right now is the time to be expanding teacher training to be ready for the new wave.*

(2) By the end of the 'seventies the secondary schools will also be experiencing a slowing down in growth rates, but at higher ages increasing participation rates will sustain steady growth. By the early 'eighties the new hump will be swelling secondary numbers again and *in staffing, buildings and equipment, the education departments should be preparing for this new hump by the mid-seventies.*

(3) *The 'rest period' will be least in evidence at the tertiary level because of increasing demand from all sectors of the community for higher education,* but a considerable slowing down of growth rates may be expected by the mid-eighties, after which there will be a further sharp kick up in demand as the increasing numbers of births now occurring attain tertiary age.

The likely impact of this increase in births upon the primary schools and upon age groups to the end of the compulsory school age of 15 can be assessed for about a decade ahead with some certainty. Much more difficult is the assessment for ages after 15 years, through the higher levels of secondary schools, where the purely demographic factors have been accentuated by a marked increase in the proportion of each age continuing on at school, in the manner indicated below.

School Participation Rates: Proportion Per Cent of Each Age Group at School

	Boys				Girls			
Age	**1954**	**1961**	**1966**	**1970**	**1954**	**1961**	**1966**	**1970**
15	44.6	65.2	76.3	82.5	40.5	56.3	70.8	78.5
16	20.6	34.5	47.5	54.8	17.8	26.2	38.6	47.4
17+*	11.8	21.3	29.5	31.7	6.8	11.0	16.8	23.7

*Expressed as percentage of those aged 17 years.

The figures vary tremendously across the States, from very low school retention rates at ages 17 and over in Tasmania, Queensland and Western Australia, to relatively high rates in New South Wales and Victoria and an extremely high figure in the Australian Capital Territory. The 1970 pattern at age 17 and over was:

	1970	
	Boys	**Girls**
New South Wales	36.3	26.2
Victoria	35.9	19.8
Queensland	20.7	15.1
South Australia	30.2	18.1
Western Australia	20.4	15.6
Tasmania	22.8	16.3
Australian Capital Territory	59.0	41.3
All Australia	31.7	23.7

These figures indicate that Australia has largely overcome an earlier anomaly of its secondary education system, when considered as a system typical of a developed and affluent society, namely the low proportions completing formal secondary education above the compulsory leaving age. The changes that have recently occurred, and that are likely to continue to occur, must greatly increase the pressure at the tertiary levels in the future. At *which* tertiary level remains one of the sixty-four dollar questions.

In terms of the human resources, what sorts of investments seem to be called for in the future? To examine this aspect I shall have to put my demographic neck out, once again, and look a little ahead at some of the implications that seem to flow at higher secondary and tertiary levels from the recent trends just discussed in retrospect.

Such a forward look requires a projection, and for this purpose I have used the official estimated population of Australia as at June 1969, by single years of age and sex; the age-specific fertility experience of 1966-68; the mortality schedules of 1965-67; and an estimate of net annual immigration of 126,000 in 1969-70 falling to 100,000 in 1974-75 and thereafter remaining constant, with the age and sex distribution of actual net immigration from June 1966 to June 1969. The assumption used is deliberately modest so as to present a minimum rather than a maximum future population. Furthermore any future changes in fertility will have no effect on the age groups under discussion until after 1984. In other words, most of the population relevant to this study is already living in Australia, so that the essential controlling factors in the pattern to be outlined are *past demographic* events and *future rates of participation* in higher secondary and tertiary education.

The next step is to consider the secondary education reservoir which will provide the flow on to the higher secondary and tertiary levels. For this purpose the expected participation rates beyond compulsory school age are assumed to be the following:

Actual 1969 and Assumed Future Secondary Participation Rates to 1986

		1969 (Actual)	1971	1976	1981	1986
Males aged	15	81	88	94	100	100
	16	54	58	64	68	72
	17+*	43	45	50	52	54
Females aged	15	77	84	90	94	95
	16	46	50	56	61	65
	17+*	28	32	38	43	48

*Expressed as a percentage of males and females aged 17.

Clearly there is little danger that the secondary reservoir, which rose so dramatically in the 'fifties and 'sixties, will dry up. Indeed past demographic factors alone have assured that it will rise further over the next decade, for in 1969 the 217,400 young persons aged 17 were backed by 221,100 aged 15, 228,300 aged 13, 236,500 aged 11 and 242,500 aged 9.

A projection based upon these assumptions gives the following estimates of higher secondary school pupils, compared with actual figures in 1969.

Projected Higher Secondary School Population (in thousands)

	Actual	Estimated	
Age	1969	1976	1986
15	174	243	282
16	111	152	198
17+	84	112	149
15+: numbers	369	507	629
: increase	—	139	122

In short, an increase of higher secondary school children of about 70 per cent by 1986 compared with 1969 seems to be the prospect.[9] Clearly this prospective increase in higher secondary pupils will mean a very substantial rise in financial investments to serve their needs, both in capital outlays for schools and equipment, and in recurrent costs of adequately trained teachers.

This aspect now raises the question of the interrelationship between these secondary patterns and *tertiary* requirements.

The Survey of Non-School Study Courses in Australia issued in 1968 by the Bureau of Census and Statistics (10) indicated that there were then some 516,000 persons in Australia aged 15 and over engaged in some form of post-school study. This figure included all attending Universities, Teachers Colleges, Colleges of Advanced Education, Technical Colleges, and all other types of 'courses of study or training other than full-time secondary school courses.' These courses involved slightly over one fifth of the young people of Australia between ages 15 and 23.

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[9]For more detailed figures see Borrie (1972), p. 64.

[10]Commonwealth Bureau of Census and Statistics, *Survey of Non-School Study Courses*, August 1968, Canberra, Ref. No. 13.11.

Many of these courses would not, however, be strictly of *tertiary* standard. The Martin Committee[11] attempted to define *tertiary* in the following way. They estimated that in 1963 there were 117,900 students enrolled in *tertiary* education in 1963, of whom 69,070 were in universities (or 58 per cent), 14,620 in teachers colleges (12 per cent), and 34,800 in technical institutions (30 per cent). This last figure was calculated as 40 per cent of all enrolments in technical or other non-university institutions and teachers colleges, with the remaining 60 per cent being regarded as non-tertiary. The Committee's figure of 117,900 *tertiary* enrolments represented 12.1 per cent of the age group 17-22 years, and the Report assumed that this proportion would increase to 17.7 per cent by 1975 to gives a total *tertiary* enrolment of 248,000 in 1975, or 17.7 per cent of the age group 17-22.

For purposes of projection I attempted to exclude from the *tertiary* category that proportion of the 516,000 persons attending non-school courses in 1968 who would approximate to the proportion excluded by the Martin Committee as non-tertiary. In other words, I am concerned in any projections only with persons enrolled for *advanced* level courses, as defined in 1968 in *University Statistics*, and in *Colleges of Advanced Education and Teachers Colleges*.

The numbers in these categories in 1968 and in 1971 were as follows:

	1968	1971
University enrolments	101,500	123,776
Government Teachers Colleges	29,200	41,249
C.A.Es 'Advanced Level Courses'	28,600	44,232
Non-government Teachers Colleges	4,200	2,234
	163,500	211,491

I have further assumed that the four major *tertiary* categories referred to above would involve, as the Martin Committee suggested, an increasing proportion of the age group 17-22, rising from 12.1 per cent in 1963 to 20 per cent in 1986, with the progression as shown in the next table. Such assumptions, which again are felt to be minimal rather than maximal in terms of participation rates in the longer run, more than double total tertiary enrolments between 1966 (152,000) and 1986 (324,000). It is, however, to be noticed that actual enrolments in 1971 (211,500) fall slightly below the estimate (213,000).[12]

Estimate of Total Tertiary Students, Based on Martin Committee Assumptions
(numbers in thousands)

	Actual		Estimated		
	1966	1971	1976	1981	1986
Population aged 17-22	1,170	1,334	1,446	1,601	1,618
Increase, 5 years	—	164	112	155	17
Percentage of age group assumed in tertiary education	13	16	18	19	20
Tertiary students	152	213	260	304	324
Increase, 5 years	—	61	47	44	20

[11]Commonwealth of Australia, *Report* of the Committee of Tertiary Education in Australia to the Australian Universities Commission, Vol. I, pp. 33-34, 1964.
[12]The actual figure for 1971 was not available when this paper was first drafted.

Given this broad pattern, what are to be the separate roles of universities and other tertiary institutions? In considering this question I again made what I felt to be minimal assumptions relating to universities, namely that their enrolment rates would stabilize by 1971 at entry rates only slightly above those of 1969 and 1970.[13] Figures based on these assumptions and set out below give the universities a reducing role in tertiary education in quantitative terms, with about 50 per cent of all tertiary students by 1986 compared with some 60 per cent in 1966.

Estimate of all Tertiary Students Assuming Contant Enrolment Rates after 1970

	Numbers (000's)			Increases (000's)		
	All Tertiary	University	Other Tertiary	All Tertiary	University	Other Tertiary
1966	152	91	61	—	—	—
1971	213	115	98	61	24	37
1976	260	140	120	47	25	22
1981	304	156	148	44	16	28
1986	324	160	164	20	4	16

Since these estimates were made the official estimates of enrolments in universities and C.A.E's in 1971 have been published and show my 1971 estimates carried forward from 1966 to be too low for universities (115,000 against an actual figure of 123,800) and too high for C.A.E's (98,000 against an actual 87,700.) My estimated total for both categories was therefore 213,000 against an actual 211,500. It seems, therefore, that in this short run at least, the C.A.E's are not yet capturing as much of the university 'market' as I had anticipated. My assumptions of constant enrolment rates after 1970 imply that C.A.E's will exert a stronger drawing power as they become more fully established, particularly if universities get tough treatment in the budgets soon to be known with respect to the 1973-75 triennium.

These figures provided by the assumptions discussed above probably do no more than meet basic needs, supplying tertiary opportunities for a reasonable proportion of the increasing numbers of school leavers. School leavers would certainly not be advantaged greatly by the above pattern, compared with the present. Our projection earlier implied an increase of school children aged 16 and over of some 85 per cent between 1966 and 1976, which may be compared with only about a 71 per cent increase shown above in all tertiary enrolments.

Further, by our definition, virtually no advantage at all in terms of proportion of the relevant age groups over the 1970 situation is assumed in the case of universities, for which enrolment ratios are held constant around 1969-1970 levels. All the surplus 'demand' over and above that fixed proportion is assumed to go to other tertiary institutions, as defined in this paper, which apparently has *not* been the case in the short run judging from actual 1971 university enrolments.

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[13]For details of these assumptions, see Borrie (1972), pp. 66-67.

I feel that the Martin Committee assumptions regarding tertiary participation rates, while perhaps reasonable for the younger people coming direct from schools, also take insufficient account of the demand that is likely to arise in the future from the *adult* population for retraining professional courses, as well as for more general non-vocational, cultural courses. A major reason for increasing enrolments in British universities and other tertiary institutions beyond the projections made in the Robbins Report has been the growing demand for further education emanating from adults.[14] The flood of applications for enrolment in the Open University is further evidence of this.

Whatever the precise numbers that may flow in the future into the advanced level courses of C.A.E's and into universities, there is clearly sufficient evidence in the statistics presented here to indicate that the educational boom is not yet over. In percentage terms, the potential growth might look less critical than in the 'fifties and 'sixties, but it must be remembered that we now begin our calculations from a much larger base and in *numerical* terms meeting the demands postulated here will mean a continuing demand for staff in all secondary and tertiary institutions. Fortunately in this regard the prospect ahead is infinitely better than it was in the 'fifties and 'sixties. While new enrolments in universities and higher school classes were leaping ahead in the 'fifties the output of graduates from our universities was falling, from 4,498 in 1959 to 3,344 in 1957; but recently the *output* from universities has been leaping ahead, as the following figures of all degrees conferred, 1951-1969, show:

1951:	4,498
1956:	3,373
1961:	5,204
1966:	9,967
1967:	11,395
1968:	12,822
1969:	14,714
1970:	15,035

The estimated figure for 1970 will rise considerably in the next few years, possibly to 16 or 17 thousand, and there is no prospect of a return to deficit cohorts like we had from the 'thirties. University output will remain on a high plateau.

There are stories current of over-supplies of graduates in some science fields (e.g. chemistry), of Ph.D's in some Arts fields who cannot get *university* posts, and of quite fabulous numbers of applicants for some jobs. The job situation has changed markedly over the past few years, and job competition will most certainly become keener than it has been for 30 years past. Yet nothing could be worse than a return to the famine years of the 'fifties to mid-sixties in terms of recruitment; but if the figures presented in this paper are at all realistic there will continue to be many openings for university

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[14]See Layard, R., King, J. and Moser, C., *The Impact of Robbins*, Penguin Educational Special, 1969.

graduates over a wide spectrum. The universities themselves will require a steady, though reduced intake of new staff; but the biggest tertiary market will be the developing Colleges of Advanced Education. *Another very importan source of absorption of graduates should be the higher grades of secondary schools.* Until high quality graduates are attracted into teaching by conditions in secondary schools which recognise reasonable teaching loads, and by remuneration which pays for academic as well as professional qualifications, Australia will continue to be weak in the foundations of its higher educational structure. Money alone is not enough, but until graduates can see much higher remuneration for academic excellence and teaching experience, they are not likely to be attracted into, or want to remain, in the profession.

This paper which began with costs has ended analysing some demographic aspects of education. The figures presented do make it obvious that education is likely to go on demanding higher levels of investment in all its aspects if Australia is to use efficiently the nation's human resources in higher secondary and tertiary colleges and in universities. All are interrelated, and while priorities for pump-priming particular sectors in particular triennia will no doubt continue to be necessary, the implications of priming one sector for other sectors must be continually borne in mind. For example, if it is decided and made financially possible to raise the retention rates at higher school levels over the next two or three years, this will indubitably raise the pressures that will follow on colleges of advanced education and universities. Having decided to establish colleges of advanced education this will indubitably increase the pressure on universities in terms of an increasing flow of high quality graduates for their staff, and it will also increase the level of expectation for school leavers and so encourage higher retention rates.

There has been a tendency in educational planning to deal separately with each of the three sectors I have covered. This is to some extent inevitable in Australia's federal structure and with the present division of responsibilities with regard to higher secondary and tertiary activities. Separate action was also probably necessary, and desirable, to launch the Colleges of Advanced Education; but *from now on increasing co-ordination in policy decisions will be essential if resources are to be efficiently allocated and used—from higher secondary right through to universities.*

What should be examined now is the education *flow* from the end of compulsory schooling to the terminal point at universities and other institutions. This implies that policy decisions should be based upon an adequate basis of knowledge. My personal interests seek first to establish the case for an adequate statistical service. This seems to be developing within the Department of Education and Science, in co-ordination with the Bureau of Census and Statistics. This further implies co-ordination with the State offices of the Bureau. Perhaps there is also a case for close liaison with a small group drawn from universities, colleges of advanced education and secondary education to see how 'flow statistics' can be improved in a way that will assist not only central policy decisions, both at federal and state levels, but also closer co-ordination with the growing numbers of non-governmental research workers seeking answers to educational problems of the future.

More and better co-ordinated research in the field of higher education might indeed be an efficient source of employment for some of the swelling tide of higher as well as first degree graduates. More generally, the recent discussions about overproduction of graduates may indeed be simply an admission that Australia is not making efficient use of its graduates; but it also means that graduates will have to offer their services to a wider range of professional jobs throughout the community than they have had to do in the immediate past era of scarcity of output. The emphasis should be on the end of scarcity rather than upon surplus production. The balance is being restored again after thirty years of imbalance.

Perhaps there should also be a hard look in planning for the future into the whole question of vocational training and re-training in the professional and higher skilled areas. Courses for adult re-training may well become a major function of Colleges of Advanced Education. We should also be clarifying the purposes for which half and more of the children are likely to go on to the end of secondary schools. The half of each age group cannot find employment in the professions, and a conclusion that may follow is that the schools themselves should structure into their higher grades more non-professional occupational training—or alternatively should more children go into employment earlier and have time off to train part-time as they earn?[15] Such questions go beyond the terms of reference of this paper, but they are nevertheless prompted by the present and likely future demographic patterns of higher education in Australia and need to be answered before solutions to current problems are sought in financial terms alone.

Finally, the 'seventies provide some chance of putting the educational house in order within the kind of financial and demographic framework set out in this paper. The pattern is not a stable one, but one of growth that may be slowing down compared with the 'fifties, but which nevertheless looks certain to remain substantial at all levels until well into the 'eighties. And going back to the financial aspects with which this paper began, the patterns discussed seem to suggest that national investments in education may be 6 to 7 per cent of GNP by the nineteen-eighties, compared with just over 4 per cent today, if the rising generations are to receive their equity compared with the opportunities their parents had, and if the rising expectations of both children and parents are to be translated into political and financial realities.

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[15]Some of the problems of vocational training for skilled trades and of the steps being taken in overseas countries to overcome them are well treated in the *Report* of Australian Tripartite Mission 1968-69 to study methods of *Training Skilled Workers of Europe*, by B. H. Tregillis et.al. (1969), Department of Labour and National Service, Melbourne.

PRIORITY FOR THE EDUCATION OF TECHNICIANS

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The aim of this paper is to present available data on manpower requirements for technicians in Australia; to survey the educational opportunities for those seeking training at the technician level and to state a case for the priority that should be given to the education of middle level manpower.

The development of the industrial potential of this country depends not only upon the availability of increasing numbers of professionally qualified people in the sciences, technologies and humanities but also how well such people are used. Some tasks carried out by graduates obviously require the lengthy and demanding education given in degree courses. However other duties are not so demanding and so it has been possible to group these and employ someone with less training to free the professional for more exacting challenges. The professional aide, known by various titles such as technician or sub-professional, has an important role in today's society. His contributions are valuable in themselves and in addition, the release of the professional man from routine tasks can result in the latter being able to proceed to fields of higher creative effort.

The definition of the term 'technician' being used in this paper is that adopted by the Haslegrave Committee on Technician Courses and Examinations (1969) in the U.K. viz. For the engineering/science or technical sector.

> Technicians and other technical supporting staff occupy a position between that of the qualified scientist, engineer or technologist on the one hand, and the skilled foreman or craftsman or operative on the other. Their education and specialized skills enable them to exercise technical judgment. By this is meant an understanding, by reference to general principles, of the reasons for and the purpose of their work, rather than a reliance solely on established practices or accumulated skills.

and for the business sector

> One who has acquired detailed knowledge and skills in one specialist field, or knowledge and skill to a lesser degree in more than one specialist field; is required to exercise judgment, in the sense of both diagnosis and appraisal, and initiative in his work; is frequently called upon to supervise the work of others; and has an appreciation of the environment beyond the immediate limits of his duties.

The acceptance of the need for technicians and some general concepts of the nature of the education required can be demonstrated by specific examples.

Professional bodies such as the Institution of Engineers (Aust.), the Royal Australian Institute of Architects and the Australian Society of Accountants have examined the role and relationship of technicians with their members.

Discussing the engineering technician in employment, B. E. Lloyd (1966) noted that not all technicians would work under the direction of professional engineers. Some, such as draftsmen, would work without that supervision. Lloyd saw manpower sources for technicians as firstly from the highly skilled tradesman who accumulated a wide knowledge of processes and materials and gained a sound knowledge of the principles underlying his craft and developed readily as a technician without further formal education. A second source was from some qualified engineers who were used on tasks not requiring their full qualifications and for which no suitable less qualified person was available. A further substantial source of sub-professional technical manpower comprised those who, having aspired to professional status, failed to complete a professional engineering course. Lloyd stated that sub-professional staff require education considerably beyond and different from that of the tradesman and that courses must be designed to prepare for the technician vocation.

For the Royal Australian Institute of Architects, Walkley, (1967) as Chairman of the Committee on Technical Training, reported that the functions of the Architectural Technician could be described in these terms:

> . . . One of his most imprtant jobs will be the investigation, analysis and preparation of the technical information required for the design. Another would be the preparation of the productive drawings and schedules which the builder uses to construct the building . . . The Technician may also take part in model making, the preparation of presentation drawings for clients, work on charts and diagrams, the administration of contracts and the running of the office. He may also have contact with the specialists who advise the Architect. Outside the office the technician may be involved in land and building survey work, site meetings, inspections of work, and collecting information on the performance of finished buildings.

It was recommended that courses of technician training should be specially designed for that purpose.

C. W. Andersen, the General Registrar of the Australian Society of Accountants, (1967:131) describing 'Accountancy Education — Present and Future', outlined changes in the method of entry into the Society for professional accountants. He pointed out that many professional people have aides trained at different levels and for particular functions.

> The need for accountants educated and trained at the professional level to have similar supporting assistance has become well established and generally recognised. So far, however, the requirement has been met largely from the pool of students who have commenced a professional course in accountancy but who, for various reasons, have been unable to complete it. Both they and the community in general would be better served by an end qualification lower than the professional level and which has a specific job objective.

The term 'Affiliate Accountant' was adopted for persons qualifying at this second level and the Institute of Affiliate Accountants (formerly the Institute of Commercial Studies) is strongly linked to the Australian Society of Accountants.

In these three examples, a common characteristic was that the educational programme for the sub-professional person must be designed specifically for that purpose. Other statements can be quoted to support that view.

Roberts (1967 xiv) as Minister of State, Department of Education and Science (U.K.) in his closing speech for the Huddersfield Conference on the Education and Training of Technicians stated:

> I am very glad to know, too, that the Conference attached critical importance to ensuring a proper status for the technician. We should have no quarrel with status, only with status symbols. To quote from one of a series of excellent papers contributed by our Australian friends — 'The technician is neither a superior tradesman nor a depressed technologist'. It is indeed essential that the technician be accorded a status of his own, that he feel himself to be a member of a body with an ethos of its own, a body of men and women who have wanted to become technicians rather than anything else, who have been selected as having the right qualities for a technician, who have had the education and training appropriate to a technician, and who are proud to bear the title of 'technician'.
>
> One certain way of helping to achieve this status is to ensure that the relevant programmes of education and training are 'custom-built' for technicians, deriving neither from craft courses 'plus' nor from technologist courses 'minus'. In the succinct words voiced early on in the Conference by a member of the Canadian delegation — 'the programmes must have their own integrity'.

Harris (1972:2) Federal President of the Institute of Draftsmen Australia, in his report 'Academic Courses for Draftsmen':

> In the past there has been a tendency by educational authorities to develop courses as a partial qualification of a full professional qualification. This has had the undesirable effect in a draftsman's training of neglecting the drawing and design content; an area where the draftsman must be most proficient.
> This committee is of the opinion that courses should be developed primarily as terminal courses *specifically for draftsmen.*

Having stated the importance and role of the technician, is there evidence of sufficient priority being to their education? What are our manpower needs?

Labour force predictions present many problems. The Australian Commonwealth Treasury issued a supplement to the Treasury Information Bulletin entitled 'Projection of the Labour Force 1968-81'. The Treasury (1970:7) warned:

> It should also be observed that a projection of the type presented here is a relatively simple reflection in one area of quite complex social change and economic evolution. It is based much more on an extrapolation of trend than a comprehension of motive. There is not much likelihood that it will be free from serious error: as noted above, the role of migration is both crucial and uncertain, whilst the participation of women and of the young and the old of both sexes does not bear a stable relation to population. The one thing of which one can

be reasonably confident is that the Statistician's continuing population survey estimates, and the next population census in 1971, will demonstrate the need for new projections in a few years' time.

Bowen (1967) claimed that no empirical results were available for any country to show whether manpower planning had significantly improved the rate of economic growth, the distribution of income, or any other desired economic measurement. However he stated that this kind of planning should be an attempt to introduce some element of order into a continuously changing situation without at the same time reducing the adaptability of the society.

Speaking to the National Conference on Training for Industry and Commerce, the need for manpower policy and forecasting was referred to by the Minister for Labour and National Service, Lynch (1970:58), in these terms:

> Effective training programmes must be based on investigations and surveys which will indicate projected national needs. Anticipating future employment patterns is difficult when rapid technical developments are taking place, but this should not deter us. To plan effectively for training policies for the long term, we need comprehensive information concerning labour supply and demand.
> I believe the Conference will need to consider manpower data which is essential for planning purposes. We need an exchange of views concerning necessary improvements in the collection, compilation and presentation of statistical information to provide a sound basis for developing planned training policies for the relatively long term. This is one of the areas of my Department's activities to which I will be giving close attention.

In his closing remarks to the same conference, Lynch (1970:89) promised that his department would initiate the task of reviewing existing methods with a view to providing better national manpower data to look ahead on a 5 to 10 year basis and beyond.

The Huddersfield Conference Report (1967:11) stated:

> The importance of detailed manpower surveys in order to assess the demand for technicians cannot be over emphasised. This is a matter of common concern to all countries whatever their stage of economic development. Manpower studies, whether made on a national basis or solely within particular industries, remain of a very rough-and-ready nature and frequently provide inadequate forecasts. There is a great shortage of trained people to undertake manpower planning surveys and the related job analyses which are essential if training and education programmes are to be based on reliable information.

An excellent reference which can be commended to those seeking ideas on how to make manpower predictions is the UNESCO publication by Goldstein (1967) titled 'Methods of Long Term Projection of Requirements for and Supply of Qualified Manpower'.

What has been done in manpower planning? In the United Kingdom, a Committee on Scientific Manpower was established in 1946 to forecast future needs for qualified scientists. This Committee became the Committee on

Manpower Resources for Science and Technology in 1964. Since 1956 these Committees have conducted triennial surveys of the supply, distribution, and forward demand for scientific, technological and engineering manpower. In 1965, for the first time, data about technicians and other technical supporting manpower was included. That Manpower survey showed that there was an overall ratio of about 3 to 1 between technicians and professionally qualified manpower. This varied considerably between major sectors of employment and between differing branches of manufacturing industry. In universities and establishments of higher education the ratio was of the order of 1:1 and that in the vehicle and contruction industries it rose to over 6 to 1.

In his analysis of that report, Sir Willis Jackson (1967), drew two important conclusions. Firstly, 4 per cent of the technicians were qualified as scientists, technologists or engineers. Secondly 60 per cent of the technicians have no technical qualifications. Both of these figures were given as evidence of the shortage of technician education.

On a nation wide scale and without reference to occupational groupings, the Commonwealth Treasury Department (1970) has projected that the Australian labour force will rise by 40.1 per cent over the period 1968-1981 if a one per cent net migration is maintained based on the assumptions made, the implication is that the high rate of growth of the labour force in the 1960's will almost be duplicated in the 1970's. The Treasury pointed out that there was a considerable rise in the labour force participation rates of married women between the censuses of 1961 and 1966. Their projections suggested that the increase in the female labour force over the period 1966-1981 will be 70 per cent. In 1965 Australia held a medium position in ranking of selected Western Countries on the ratio of female labour force to population. By 1980, Australia would be ranked equal with the U.S.A. and Sweden, with higher ratios shown only for Austria and United Kingdom. Education must be provided for this increased proportion of women and programmes for married women would appear necessary.

In a specific industry, the Plastics Institute of Australia Inc. has carried out a survey of manpower and training needs in the plastics industry. Kelly, (1971) reported that the industry already had a serious shortage of trained personnel and a large portion of the industry was experiencing difficulty in recruiting suitably qualified personnel for nearly every job function. The anticipated increase in numbers of people required varied between 54 per cent in the next decade for toolmaking/pattern-making to 144 per cent in the production engineering area. Occupation groups most affected in regard to existing shortages, anticipated growth and training needs were supervisors, tradesmen and technicians. The survey showed that the area of supervisors was the most urgent training need. The majority of supervisors employed had insufficient formal educational background to enable them to proceed to the higher level training required to meet the changing demands of their job. Responses indicated that approximately 70 per cent of the supervisors had less than four years of secondary schooling. The Plastics Institute has taken steps to overcome the deficiencies revealed by its study.

In a survey of firms in Non Electrical Plant and Machinery Manufactur the Department of Labour and National Service (1969) reported a forecast

an estimated increase of 18.5 per cent in the numbers of technicians needed by the end of the period 1969-73. This was broadly comparable to similar estimates made by employers in the United Kingdom.

The National Steering Committee on Training for Industry and Commerce is seeking to encourage industry organisations, including the trade unions, to undertake comprehensive assessments of industry training needs. In general the aim of industry surveys is to define, on a national basis, the manpower and training needs and problems of each industry. These will provide further information on the need for technician education.

Thus to this point, this paper has described the importance and acceptance of technicians in the workforce, the problems of manpower forecasting and the scarcity of information available in Australia.

What is being done to educate technicians? If the U.K. Manpower Survey of 1965 was correct on its claim of an overall ratio of 3 to 1 between technicians and professionally qualified manpower, then Australia is far short of that ratio.

The Department of Labour and National Service in 1961 sampled about 45 per cent of the employees in the chemicals, dyes, explosives, oil and grease group of industries. Hudson (1962) reported that the ratio of technicians to technologists in that sample was 0.52. The ratio ranged from as low as 0.35 in the paints and varnishes sub group to 1.63 in the pharmaceutical and toilet preparations sub group.

In August 1968 the Bureau of Census and Statistics carried out a survey of Non School Study courses. This was based on a one per cent sample of households throughout Australia. The survey showed, that at that time, there were over 87,000 full time students in professional courses (university or college of advanced education) with a total of 164,000 students in such courses, while there were less than 10,000 full time students and a total of only 116,000 students in technician level courses of all types. The detailed figures are available in the Official Yearbook of the Commonwealth of Australia (1970:643). The numbers of technicians being educated are inadequate. Statements by Williams (1971:115) and Clark (1971:118) support this claim.

Education for technicians is offered in two major types of institution — in technical colleges (Certificate Courses) and in Colleges of Advanced Education (in Wiltshire nomenclature - B2 diplomas). Some attempt has been made to establish the enrolment trends in these types of institutions and expenditures in this area of education.

Technical College enrolments present particular problems due to differences in course structure and nomenclature from state to state. It may well be that certain post trade courses not leading to the award of a Certificate do indeed prepare technicians. Correspondingly some Certificates may be given for courses which fall short of technician level (whatever that level might be). Nevertheless total enrolments over the period 1968-1970 are shown in Appendix A.

The expenditures in State Education Departments are not usually segregated into areas of activity so that it is not possible to establish expenditures on technician level education. Again interstate comparisons on expenditure have to be done with caution having in mind the differing responsibilities that a Technical Education branch may undertake. For example, expenditure on adult education is included in Western Australian figures but not in Tasmania. In Western Australia the majority of the state's offerings in adult education are financed through the Education Department, in N.S.W. offerings are financed both through the Education Department, and the Department of Technical Education. Expenditures shown in Annual Reports for the States for Technical Education (and excluding expenditures on Colleges of Advanced Education) are given in Appendix B.

In examining these figures, it will be asked that figures for Victoria are generally not available. This was due to the delays in publication of Annual Reports of the Education Department and the failure until 1969, for expenditure on Colleges of Advanced Education to be excluded from reports of expenditure on Technical Education. In comparing the enrolments in the period 1968 to 1970 it is significant to note that the growth has ranged from 6.7 per cent in Tasmania to 56.8 per cent in South Australia. Comparing expenditures, the greatest increase has been 49.4 per cent in Queensland and the least was 14.1 per cent in South Australia. The large increase in enrolments in South Australia reflected the lower initial offerings in Technical Colleges and the deliberate transfer of technician courses from the South Australia Institute of Technology to what is becoming the new Department of Further Education.

The relatively small increase in expenditure in South Australia reflected the low amount spent from loan funds in 1970. Expenditure in 1970-71 rose to $7,819,175. The latter figure was an increase of 63.0 per cent on 1968 expenditure. Whilst some of the increased expenditures in all states reflect rising costs, it would appear that some monies have been available for expansion of opportunities for technician training.

With Colleges of Advanced Education again there is the problem of inconsistency between data from differing institutions. Incomplete returns from Colleges of Advanced Education has meant that a statement of enrolments and expenditures on Technician education in Colleges of Advanced Education cannot be made. It is disappointing that the Reports of the former Commonwealth Advisory Committee on Advanced Education do not permit this analysis.

Taken together, the available information shows that inadequate data is collected and reported.

A specific analysis of technician enrolments and finance is hindered considerably. The lack of Australia-wide co-ordination for technician education contributes to this problem. Apprentice training is discussed at the Australian Apprenticeship Advisory Centre, work in Colleges of Advanced Education is co-ordinated through the Australian Commission on Advanced Education and Universities have the Universities Commission.

Australia needs a National Committee for Technician Education. Such a Committee would provide leadership in the development of technician education. Whilst not taking away the rights of States and institutions to offer their own awards according to their own curricula programmes, the accreditation of courses for National Certificates could be a step towards greater public acceptance of technician qualifications. The Australian work force is less conscious of state boundaries. The title of a bachelors degree may cloak a wide variety of courses but the title has acceptance as an indicator of a level of scholarship. Technician Certificates need an image of an award meaning a certain level of achievement, one that exceeds matriculation and one that has value to an employer and the community.

I do not consider that Australia is yet ready for a National Technician Committee such as that which operates in New Zealand under the Technicians Certification Act 1958. That Committee's functions include the prescription of courses and syllabuses, the conduct of examinations for technicians, and the granting of a diploma or certificate to a person completing a course prescribed under the Act.

Nor do I see the Technician Education Council or Business Education Council as proposed by Haslegrave (1969) as meeting Australia's needs with its strongly independent state authorities.

A National Technician Council must see that an appropriate share of the nation's resources are spent on technician education. Data has already been presented in this paper on the imbalance in enrolments between professional and sub-professional courses. The imbalance in expenditures by the Commonwealth Government in further and higher education in the six states (excluding the Commonwealth territories, ACT and NT) is shown in the following table extracted from the speech of the Minister for Education and Science delivered on 5th October, 1971.

COMMONWEALTH GOVERNMENT EXPENDITURE ON FURTHER AND HIGHER EDUCATION 1971-72 ESTIMATES

	Recurrent	Capital	Scholarships & allowances	Research Grants	Total
Universities	67,863	22,167	31,782	4,346	126,158
College of Adv. Education	19,182	18,574	3,657	—	41,413
Technical Colleges	—	9,217	1,065	—	10,282
Teachers Colleges	—	14,205	200	—	14,405
Total	87,045	64,163	36,704	4,346	192,258

Enrolments, Australia wide, in technical colleges are of the order of 400,000, universities 100,000 and colleges of advanced education 40,000.

Current Australian priorities as far as the Commonwealth Government is concerned clearly reflect concern for the education of professional level people. Is there an Australian shortage of such people? Ranging from reports

by the Sydney University Appointments Board (1971) to statements by the Research Director of Imperial Chemical Industries (1971); to a reported attack on universities for producing so many Arts graduates by then Labour Minister Bury (1969); to university graduates being warned of a shortage of the job they wanted by the acting Vice Chancellor of Melbourne University (1972); there is evidence of the demand for professional people being met by the current institutions and expenditures. The role of Ph.D. itself is also under review (e.g. Spicer 1971).

The expenditure by States in the technical college sector has shown little increase as a proportion of total State expenditure on Education. Data quoted by Philp (1970:30) indicated that 7.5 per cent of expenditure has been on technical education for almost every year between 1958-59 and 1967-68. The percentage spent on universities has grown from 6.7 per cent to 9.1 per cent over the same period. The component allocated to secondary education has risen from 22.8 per cent to 31.1 per cent. These gains have been made whilst there has been a drop in primary school expenditure from 48.5 per cent in 1958-59 to 37.5 per cent in 1967-68. Clearly the technical education sector (and hence technician education in technical colleges) has been neglected. Lack of information prevents an analysis of the increase in expenditures on technician education that may have occurred in Colleges of Advanced Education.

Australian growth in productivity has been reported (Tregillis 1969:88) as lagging behind those of other advanced countries. What is needed is a more balanced and better trained work force. As the Tregillis Mission stated

> We repeat it is just as important to the economy of the country that there should be adequately trained technicians as there are adequately trained university graduates in the liberal arts and the sciences.

Now is the time to turn attention to the education of sub-professional people, the education of technicians. There must be considerably increased expenditure on research into what is the best educational programme for a technician; what should be the appropriate mix of full time and part time study; and the nature of the content of a technician's course. Money needs to be spent on improving physical facilities and equipment. Technician teachers need better preparation for their task. A blend of industrial experience and education 'know-how' is essential and opportunity must be made available for regular updating of both. Salaries, status and working conditions must be raised so that technician teaching will provide a satisfying career for men and women from both industry and education. A concerted effort is needed to convince young people, parents and employers that a technician education has an integrity in its own right.

As a first step the States and Commonwealth, employers and employees must together form a National Committee for Technician Education. The Commonwealth Government must be urged to change its present piecemeal approach to financial support to education. The Commonwealth and the community must see the need for a policy that will encourage a proper balance between professional, technician and apprentice training that will lead to maximum benefit to Australia.

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APPENDIX A

ENROLMENTS AT TECHNICIAN LEVEL IN TECHNICAL COLLEGES

	1968	*1969*	*1970*
NEW SOUTH WALES			
Certificate	30,446	32,024	34,227
Post Certificate	1,076	1,267	1,570
VICTORIA			
Certificate	10,047	n.a.	n.a.
Technician	2,047	n.a.	n.a.
WESTERN AUSTRALIA			
Diploma	4,682	4,807	5,499
Certificate	3,480	3,347	4,047
SOUTH AUSTRALIA			
Certificate	1,996	2,797	3,347
Advanced Certificate	325	286	292
QUEENSLAND			
Sub-Tertiary	2,852	3,011	3,378
Tertiary	17	85	65
TASMANIA			
Certificate	2,540	2,587	2,711

SOURCES

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APPENDIX B

STATE GOVERNMENT EXPENDITURES ON TECHNICAL EDUCATION (EXCLUDING EXPENDITURES ON COLLEGES OF ADVANCED EDUCATION EXCEPT FOR TASMANIA)

NEW SOUTH WALES
Year ended Dec. 31

	Consolidated Revenue	*Loan Funds*	*C'wlth Ass. Grant*	*Total*
1968	17,560,636	2,178,343	3,015,198	22,754,177
1969	18,550,700	1,836,114	3,542,773	23,929,587
1970	22,536,729	2,847,223	2,201,305	27,585,257

(Source: Survey of Needs for Technical Education in N.S.W. 1971-1975 page 3.1.)

VICTORIA
Year ended June 30

	Consolidated Revenue	*Loan Funds incl. C'wlth Grant*	*Total*
1968	n.a.	n.a.	n.a.
1969	7,945,192	1,900,666	9,845,858
1970	n.a.	n.a.	n.a.

WESTERN AUSTRALIA
Year ended June 30

1968	4,540,709	785,960	5,326,669
1969	5,344,684	585,129	5,929,813
1970	6,303,241	425,379	6,728,620

SOUTH AUSTRALIA

Year ended 31/12/68	3,945,922	850,000	4,795,922
Year ended 30/6/69	5,524,743	2,440,991	7,965,734
Year ended 30/6/70	5,197,521	275,145	5,472,666
Year ended 30/6/71	6,475,079	1,344,096	7,819,175

QUEENSLAND
Year ended June 30

1968	4,535,061	1,648,736	6,183,797
1969	5,022,667	1,854,999	6,877,666
1970	5,876,958	3,001,595	8,878,553

TASMANIA
Year ended June 30

1968	1,500,191	863,899	2,364,090
1969	1,948,639	358,222	2,306,861
1970	2,238,666	714,960	2,953,626

SOURCES:

N.S.W.—"Survey Needs for Technical Education in N.S.W. 1971-1975."
S.A.—"Survey of the Needs for Further Education in South Australia."
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PRIORITIES IN MULTI-MEDIA EDUCATIONAL PROGRAMMES

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The term 'multi-media' signifies the use of more than one medium, and it should be noted at the outset that this may or may not be a desirable educational strategy. Unfortunately there are no general rules of learning known at present which can be used to determine instructional design. Rather, one should ask: 'What capability is to be learned and in what manner is the student's performance expected to change, as a result of the learning?'

There is one further term in the title that I have chosen to work under, which may be subject to different interpretations. By 'programme' I mean a segment of material with precise objectives, which is recorded in some form so that it is exactly repeatable and to some extent has been validated, so that we may be confident that it is teaching what it purports to teach. Usually the student will interact with the programme, for example, responses or problem-solving skills will be required. A 'programme' will include such possibilities as programmed learning, an independent study carrel programme which may be principally audio, a film or a television programme.

Extent of the Programming

The extent of the detailed presentation (i.e. 'programming') of a particular session will depend principally on the teacher and his expertise. It is his responsibility to specify both the general and detailed objectives and then prescribe the conditions of learning which will lead the student to the realisation of these objectives.

In general, the extent of the programming will be intermediate between the precise and rigid Skinnerian programming and the rather loose 'programming' that is characteristic of educational television sessions.

A typical Skinnerian linear programme has passed through many revisions before the final product is published. Skinner employs a set of techniques for analysing and controlling behaviour.

Machine Programmes, share with the individual tutor many advantages over other techniques of teaching:

1. Each student advances at his own rate, the fast learner moving ahead rapidly while the slower learner moves at a speed convenient for him.
2. The student moves on to advanced material only after he has thoroughly mastered earlier stages.
3. Because of this gradual progression and with the help of certain techniques of hinting and prompting, the student is almost always right.

4. The student is continuously active and receives immediate confirmation of his success.
5. Items are so constructed that the student must comprehend the critical point in order to supply the answer.
6. 'Concept' is represented in the programme by many examples and syntactical arrangements, in an effort to maximise generalization to other situations.
7. A record of students' responses furnishes the programmer with valuable information for future revisions.

(Holland & Skinner: Analysis of Behaviour)

'Programming' in educational television, on the other hand, typically involves detailed planning of the session. The script will usually consist of two columns—one for the audio component and one for the visual component of the telerecording. Unlike the Skinnerian analysis, the depth of treatment may not extend beyond a consideration of the most appropriate aural and visual component for each phase of the communication. The student is not able to advance at his own rate. Indeed, item 6 above may be the only characteristic in Skinner's list, which is present in an educational television programme.

Whereas 700 students from Harvard and Radcliffe Universities were used in revising Skinner's programme, extensive student response is rarely employed in the revision of an ETV programme. It is most desirable that all educational programmes should utilise a measure of student feedback to shape the final programme. The measure of active student participation in a programmed individual study session will be intermediate between that required by ETV and a Skinnerian linear programme.

Rationale for Choosing Media

If we wish to teach Boyle's law, for example, then which of the media of communication do we choose? Upon what rational basis will such a decision rest? Of course the question is not simply one of which medium or media to choose, but also, 'In what combination and in what manner are they to be employed?'

This problem is well phrased by Gagné (The Conditions of Learning P.272) when he asks: 'For what purposes are these various media appropriate, and for what purposes are they inappropriate, or at least relatively ineffective?' Symbols, objects and events are the stimuli from which learning occurs and therefore they should be chosen according to the type of learning that is required. This can be readily illustrated from the example of Boyle's Law.

The objects and events will differ according to whether discovery learning or a didactic approach is to be used.

The first step towards the rational selection of media is to precisely specify the behavioural objectives of the instructional programme. *There is no aspect of educational programme production with a higher priority than the*

unambiguous statement of what the learner should be capable of after the period of instruction, that he was not capable of before, i.e. what benefit has he received from that instructional segment? Unless the goal is accurately specified, how will we determine when we have reached it? The teacher or programmer must be able to 'specify and communicate those educational intents he has selected' and to describe 'the terminal behaviour of the learner to preclude misinterpretation'.

(Mager, 1962)

Mager (Preparing Objectives for Programmed Instruction, 1962) has listed three recommendations for writing satisfactory educational objectives:-

1. Identify the terminal behaviour by name; we can specify the kind of behaviour which will be accepted as evidence that the learner has achieved the objective.
2. Try to further define the desired behaviour by describing the important conditions under which the behaviour will be expected to occur.
3. Specify the criteria of acceptable performance by describing how well the learner must perform to be considered acceptable.

When the objectives have been identified, the type of learning should be apparent. Gagné (The Conditions of Learning, 1966) has provided us with a useful hierarchical model ranging from simple signal learning to problem-solving.

Each type of learning (and there will usually be several types in an instructional programme), requires its own external conditions of learning (e.g. concepts; principles; problem-solving). The programmer should now be able to list the instructional events, identify the characteristics of required stimuli and state the possible media which will satisfy these conditions. The final decision will also depend on factors external to the learning situation such as time, staff and finance available. In many cases it will be a compromise and the inconvenience of changing from medium to medium will have to be considered.

It is beyond the scope of this paper to deal further with the Gagné model of the 'Conditions of Learning'. I would, however, recommend it to those with responsibilities in the fields of media selection, production, utilization and evaluation, If I have appeared to labour unduly the whole question of educational objectives it is because I am convinced that it should be a central aspect of all educational programmes, and indeed of the whole field of educational technology.

Priorities in the development of educational programmes

There are two principal aspects of this problem to which I wish to address myself:

1. What are the priorities within an existing educational course for the development and utilization of multi-media programmes?
2. The State and National problem of the selection and training of staff with professional skills in the area of media selection and use.

The following factors should guide us in making decisions about which courses and portions of courses are most suitable for multi-media programmes:

1. Relatively large numbers of students—especially in a compulsory course or core area.
2. Students who are unequally prepared for a course, or where individual differences are particularly evident. The advantages of individual study then become more pronounced.
3. Areas of the curriculum which are not subject to very rapid change. It would be uneconomic to make a major investment in programming material which is rapidly becoming obsolete. Rowntree (Basically Branching, 1966) advises: 'New subjects particularly are liable to change. Let them settle down before you start programming'. In many areas of university education stability of subject matter is lacking (e.g. radiology, drug-specifications, current affairs) and a programme would be out-dated before it could be validated and printed.
4. Areas or topics about which there is a general consensus of opinion. The arts and social sciences, where opinions and value judgements become important, are often less amenable to programming than the more factual subjects.
5. Which subjects or areas are being taught ineffectively by present methods? Are there subjects that are not being taught at all due to lack of qualified staff (e.g. first aid for oil refinery personnel)? Are there trouble-spots within existing curricula-areas where students in general have difficulty (e.g. Time and International Date-line in Secondary School Geography).
6. Areas where human contact and interchange is not essential. For example, if the conditions of learning require discussion methods, or skill in expressing ones views to others, then an approach based solely upon independent study methods will be inappropriate.
7. Areas where student response and feedback, on an individual basis, is important.

The above factors should provide some guidance as to which sections of courses may be expected to provide the greatest educational benefit in terms of either the programming effort required, or the cost in purchasing existing programmes.

Priorities in the selection and training of media specialists.

This final section of my paper is a report of the Educational Technology Committee of the Victorian Institute of Educational Research. I would like to publicly acknowledge the assistance of each member of that Committee over the past 18 months.

We have received a large number of submissions, both personally and in print, from persons professionally engaged in Educational Technology and allied areas. The aim of this study was 'to define the role of the media specialist and to determine the nature and duration of his training', and a summary of the findings and recommendations will now be presented. The full

report is to be published in the *Bulletin* of the Victorian Institute of Educational Research later this year.

The Commonwealth Government has recently provided a number of Education Resource Centres in secondary schools. The cost of each of these buildings is approximately $90,000, yet little thought has been given to the pre-service or in-service training of staff for these Centres.

If these new buildings are to become true Resource Centres, and not merely elaborate libraries, then an immediate attempt must be made to provide adequately trained staff.

One of the basic concepts of a Resource Centre is that it can cater for individual differences amongst students. This function will be achieved by providing a range of both single and multi-media programmes. Only qualified staff will be capable of selecting from the commercially available programmes or producing and validating their own programmes.

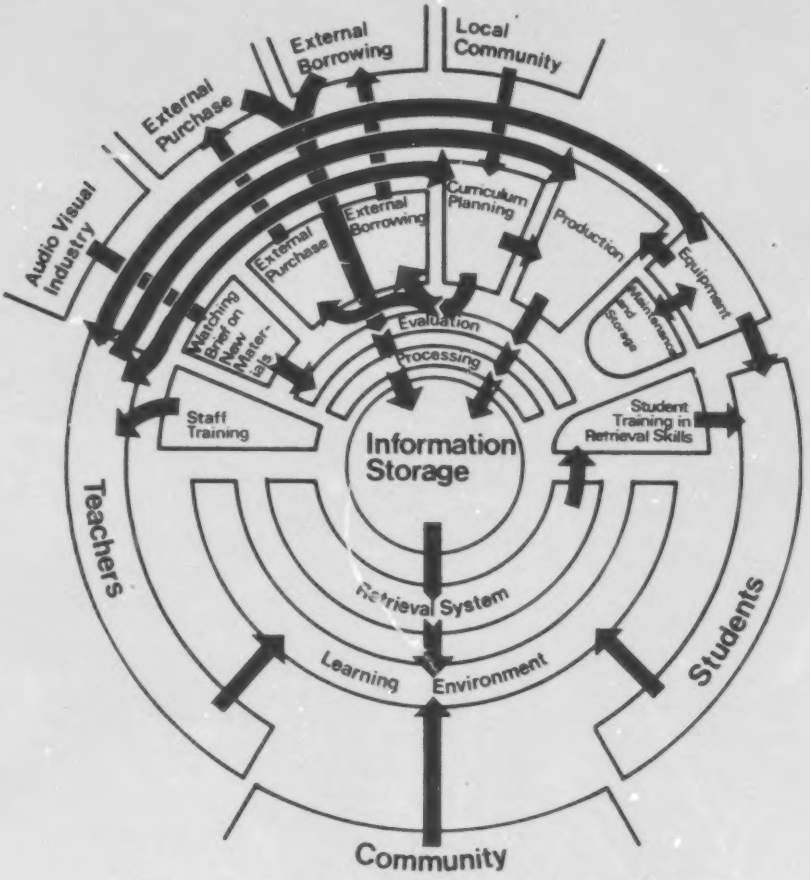

Figure 1.—Functions of an Educational Resource Centre.

The major Educational Resource Centre (E.R.C.) role is accepted by the Committee as information storage, retrieval and professional consultation services. These functions have been analysed in Figure 1 and this provides a visual representation of the main interactions between persons and processes that are envisaged in the system.

When we speak of the functions of an E.R.C. in a secondary school, and the training of specialists to staff such a centre, we do not intend to imply that all secondary schools should have an E.R.C. with the same structure and functions. We hope that a flexible system which will be integrated within the activity of the school will emerge. Such a system can make a unique contribution towards the fulfilment of the educational aims of the institution. One would therefore expect to find certain functions of the E.R.C. more evident in some schools than in others.

At the risk of over-generalizing one can examine the functions of an E.R.C. in relation to three major types of school:—

Type A School — examination dominated and therefore content dominated; teacher centred; students are passive absorbers of information mainly dispensed by teachers through class lessons and the text-book. Main resources are teacher, chalkboard and textbooks. A few teachers use audio visual aids to brighten up their lessons, but there is much boredom and little meaningful learning.

The E.R.C. in such a school is a library containing only print material. The school would not miss the library very much if it disappeared.

Type B School — is a modern innovative school — down and out with exams and assessment, down with subject barriers (and sometimes subjects). Some form of integrated programme, e.g. general studies. Very student-centred but the more able students may be bored. Assignments and excursions are largely used; students are active, sometimes working on assignments, sometimes just active (euphemistically called socializing). There is more incidental learning than in type A. Main resources are the teacher via duplicated notes, textbooks, E.R.C., community, parents and the pupils. This is based on the idea that children learn by experiencing but that this should not be too contrived or controlled. 'Student is usually right' approach. There is a constant search for new and better ways of doing things.

The E.R.C. is a library with more books, journals and non-print materials than Type A. It is also used much more extensively by both staff and students.

The school would miss the E.R.C. if it disappeared, because it has become an integral part of the school.

Type C School — is largely in the future. It uses clearly stated objectives which are assessed and the school programme modified as a result. It is student centered in the sense that learning is individualized for each student. It uses a carefully designed balanced programme of large group sessions, small group sessions and individual study to achieve a balance of cognitive, creative, attitudinal and physical skill objectives. There are no fixed, rigid classes but flexible scheduling is used. The principal resources are packaged programmes, e.g. SRA, JSSP, problem solving activities and action research.

Audio visual resources are integral sources of information and stimuli, together with printed materials and people. This approach is based on the idea that children learn in different ways and at different rates and that the school role is to provide each student with just enough structure to facilitate his learning. The students are involved in the choice of objectives and contract to achieve these at their own rate. The long-term aim is to develop successful autonomous learners and hence the emphasis is on developing skills of self-directed learning and arousing and maintaining motivation to learn.

The ERC is the 'beating heart of the school', open on a cafeteria basis, well stocked with the resources required and appropriately staffed. The ERC is as important to the student as the laboratory is to the scientist—the school could not function without it. The staffing establishment of an ERC will not only depend upon the size of the school, but also upon the nature of the curriculum, the methods of teaching and learning used, the use of the ERC outside school hours and the size and nature of the collection of software and hardware.

Simplified Task Analysis

In view of the multiplicity of factors involved, each staffing case would probably have to be argued on its merits. However, a general model, capable of adaption for individual schools, is shown in Figure 2.

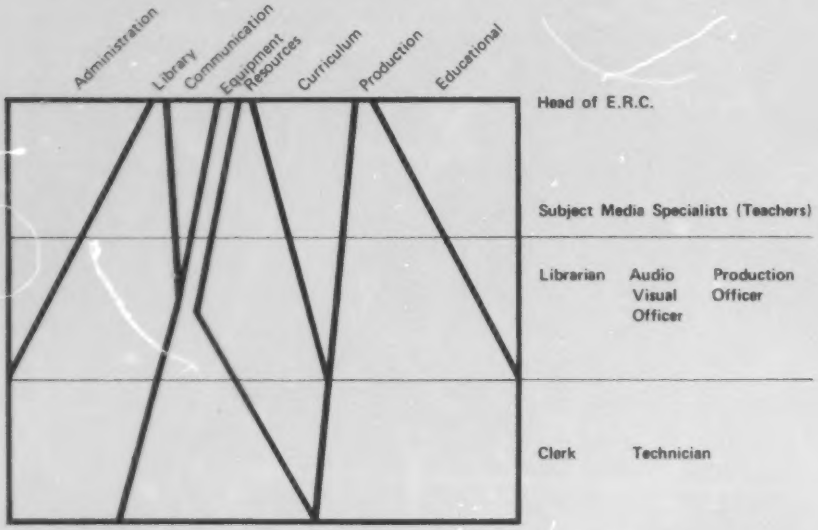

Figure 2.—Staff Roles in a Secondary School Educational Resource Centre.

The horizontal areas reveal three levels of responsibility from Head of an ERC down to clerk, and the types of expertise required to perform these roles at each level. The proportion of the areas varies as the role varies between the levels. It is equally obvious that the nature of the school will influence these proportions in each school, e.g. a school experimenting with open classrooms

or ungraded classes may require an extensive knowledge of resources and make heavy demands on production and educational know-how of ERC staff.

Staffing E.R.C.'s

1. It is essential that a carefully designed staffing structure is set up by the Education Department and approved by the Tribunal as soon as possible or the potential value of the E.R.C.'s will be lost as they lapse back into book-minding centres through lack of well qualified and enthusiastic staffs. Therefore, as a short term solution, it is both more efficient and more effective to take teachers who have these qualities and to give them training in the other areas than it would be to take staff skilled in librarianship or audio visual services and give them the necessary experience and training in education and administration. Of course a few of our librarians already have extensive teaching experience, but most have not.

A suggestion is that senior teachers should be offered a post-graduate, part-time course to qualify them for the position of Head of an E.R.C. These teachers should have had at least five years teaching experience, have a desire to specialize in this area and have shown initiative in experimenting, or have had experience in an innovative curriculum programme.

A detailed curriculum which the Committee believes is suitable for future media specialists, is to be published in the *Bulletin* of the Victorian Institute of Educational Research in November 1972. Figure 1 represents many of the diverse functions of an ERC, and the proposed course of training should prepare teachers to carry out the varied activities and skills which the operation of an effective ERC requires.

Staffing the Educational Resource Centres of Schools A, B and C

In each case assume a secondary school enrolment of 800-900 students.

Type A School would require the following staff structure for the E.R.C. which would be most suitable for its present state, but which could begin a process of evolution in a more progressive direction:

1 Teacher-librarian with teaching experience.
1 Librarian.
1 Media specialist (AV).
2 Library technicians (or clerks).

This staff in a Commonwealth standard E.R.C. could perform its functions adequately for School A and facilitate useful educational change in the school.

Type B School would require at the least the following staff:

1 Director of E.R.C.
2 Teacher-librarians [Media Specialist (Library)].
2 Library technicians.
1 Library clerk.

1 AV officer (AV Media Specialist).
1 AV Technician,
together with at least one Curriculum Resources Adviser (a teacher assigned to the position and trained for the role).

Type C School would require:

1 Director of E.R.C.
4 Media Specialists (Library).
3 Library Technicians.
2 Library Clerks.
1 Typist.
2 Media Specialists (A.V).
1 AV Technician.
1 Media Specialist (Production).
1 Production Technician.
plus 5-7 Curriculum Resource Advisers.
This may appear a large staff but it must be remembered that there would be a greatly reduced classroom contact for students with a subsequent increased use of the E.R.C. facilities and a reduction in the number of other teachers required.

Regional and National Centres.

Regional Centres, in which a team of educational technologists accept the present state of educational instrumentation, and work within its limits, should be established. They will employ a systems approach to the design of educational materials which will permit maximum learning to occur. This involves specifying behavioural objectives, development of instructional strategies, testing and revision of instruction units and, finally, packaging and administering a validated learning system.

This is similar in many respects to the programmed learning approach.

An urgent priority exists in Australia for the establishment of a National Centre which will seek out existing programmes, adopt them if necessary, and also produce validated programmes of wide application. These programmes, many of which will be designed for individual use, may incorporate a wide range of educational media. On some occasions a choice of media should be offered, in order to cater for all learning styles.

HISTORY'S FUTURE IN THE SECONDARY SCHOOL

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The title of this address, 'History's Future in the Secondary School', carries the obvious implication that the future of History as a separate discipline is no longer as secure as it once was. On this there would be general agreement: In two States History is no longer taught in the junior secondary school having been merged with the Social Science subjects in interdisciplinary programmes. In every other State new junior secondary Social Science courses have been, or are to be, introduced and at the national level a committee has been appointed to assist and co-ordinate the work of curriculum officers and teachers with these courses. Nowhere does History now have a separate existence in the Primary School.

In this paper I shall not be so concerned with the future of History as a separate elective and relatively specialised discipline. Its future in this role, at the senior secondary level seems assured, particularly in the light of important changes which are occurring as history educators engage in considerable rethinking of the objectives, content and teaching strategies of their subject. My concern will be with the future and place of History in the general education of children, particularly at the junior secondary level, following renewed interest in the Social Studies/Social Science concept.

In this context, the very nub of History's current dilemma is simply that it has for almost a century been charged with much of the formal social education of school children. Now its position has been challenged by a whole range of new disciplines—sociology, political science, anthropology, social psychology, as well as the more established disciplines, economics and geography — which can lay claim to making a valuable contribution to the child's social education. No doubt the position of school history has also been aggravated by its past: Its content was narrow, its methods formal and traditional, the view of the past which it transmitted was both romantic and conservative and as a result its contribution to citizenship education, from a contemporary view, was perhaps questionable. On the other hand, in matter, method and result it was probably no more worthy of criticism than many other subjects of the old curriculum.

As we know the current challenge to History's position in the school curriculum is not its first. This occurred in the late 30's and took concrete form in the two succeeding decades with the introduction of Social Studies. At first the Social Studies movement seemed to promise a bright, new era in social education;[1] as it turned out, however, it was very much a non-event. The secondary school system of the 40's and even the 50's, still very much under the influence of selective traditions, was not fertile ground for multi-disciplinary courses and in any case History's contribution to the new subject

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[1]For footnote see next pagt.

was a major one. The 'old' Social Studies was multidisciplinary only in a very limited sense.

The new challenge to History's position in the school curriculum is much more substantial: Important reforms in secondary education have made the accommodation of new courses much easier than was ever the case in the past. History now has a much greater number of disciplines ranged against it backed by specialists and educationalists who are anxious to see the social sciences making a direct contribution to the education of school children.[2] Furthermore, the structuring of multidisciplinary courses, following American models, has become more sophisticated; Social Science/Social Studies, in the wake of mathematics and science, is feeling the influence of the curriculum revolution. These developments have been buttressed by considerable professional and public interest and support, professional interest being touched off, no doubt, by the 1967 Burwood UNESCO seminar.[3] Within the community there is an increased awareness of social issues and a general feeling that children should be prepared much more directly and effectively for adulthood in a rapidly changing and complex world. Again, a demand of the so-called 'student movement' has been for greater 'relevance' in the school curriculum.

One cannot, of course, pronounce this second Social Studies movement a success. In some States the experiment has hardly been launched and, in any case, the very nature of the multi or interdisciplinary approach must raise its own peculiar problems. Indeed some of the Social Science movement's leading enthusiasts not only present different concepts of the purpose of Social Science in the schools[4] but also express some reservations about the courses which have recently emerged.[5] In their writings they commonly adopt a cautionary tone as they reflect upon the very real problems in structuring

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[1]At the 1937 New Education Fellowship Conference the Finnish educationalist, Dr. Zilliacus affirmed, "In the new schools the old separate subjects are done away with or rather fused in the single subject, Social Studies, where political and cultural history, economics and geography, simply become the different angles from which to view the single problem of understanding some phase of the life of mankind" *Social Studies for Schools*, Melbourne University Press 1946, p. 7.
It is interesting to note how a much more recent definition is so close to the one above which was made some 34 years ago: "The broad understanding of society and its mode of working seems to require a form of teaching that crosses the boundaries of separate disciplines, that draws concepts, general principles of explanation, factual material from one after another of the social sciences . . ." P. Patridge, W. F. Connell, S. W. Cohen, *Social Science and the Secondary School*, Novak, Sydney, 1969.

[2]Thus Professor Encel has written, "In the last ten years, a growing number of academic social scientists have taken a serious interest in the possibility of teaching their disciplines in the schools, and the importance of sociology and allied subjects in helping the student to understand the modern world is at last being recognised by the administrators". "Social Studies and the Social Sciences", *Australian Journal of Education*, Oct., 1970, p. 229.

[3]See P. H. Partridge, "A Report on the Seminar", *Education News*, Vol. 11, No. 6.

[4]See Encel, op. cit., pp. 230-231 in which he differentiates between those who see Social Science as primarily important for the child's social education and others who see its main contribution as intellectual.

[5]See, for example, David Dufty, "After Burwood What? a Study in Curriculum Innovation and Evaluation", *Australian Journal of Education*, March 1971, pp. 73-92.

and presenting such courses and in preparing teachers to teach them.[6] Nevertheless, given the enthusiasm and commitment of those engaged in the new movement and the increasing sophistication of curricular techniques, one can only feel optimistic about its success.

Not surprisingly a large proportion of History teachers in some States, notably in N.S.W., are in considerable opposition to suggestions that their subject should give way to Social Studies/Social Science in the junior secondary school. Reports upon the contest in N.S.W. refer rather emotively to 'somewhat paranoic meetings of History teachers'[7] and warn against 'unsaintly, empire-building and bandwagon-jumping.'[8] In some desperation one educationist has declared that he is 'weary of the war' and appropriately enough has called for an *'entente cordiale'*.[9] The opposition viewpoint has been forcefully argued by Alan Barcan in his recent *Social Science, History and the New Curriculum*.[10] No doubt it is to the benefit of both History and Social Science that this very spirited debate has occurred.

History's problem in the new order could be easily resolved if it was, like anthropology, political science or economics, a relatively narrow discipline. Then it could be legitimately assigned its 1/6 proportion of a multidisciplinary programme: In the Social Science syllabus organisation which is becoming common of six vertical columns appropriately labelled history, sociology, anthropology and so on, its particular column might represent its equitable quantitative proportion of the course. However, it is not nearly as simple as this: History is a synthesising discipline, its interests have considerable universality and in its inquiries of mankind's past, the present as we know being a rather transient quantity, it can lay claim to the various forms of knowledge and investigation at man's disposal.

The result is that at the school level History, in the face of the challenge from multidisciplinary programmes and no doubt in recognition of its old inadequacies, is now demonstrating its considerable adaptability. At a relatively simple level, for example, it is not too difficult to argue that a course even in Ancient History has relevance to the present. Lately, however, school history courses have responded to challenges more complex than this: If educational concern is that children should have a knowledge of the very recent past and present so that the contemporary world is more comprehensible, school studies become allegedly more relevant and greater international understanding be attained, then contemporary world history courses can be introduced. This is in fact becoming a common trend in History Syllabuses in many western countries—the new Queensland Senior History being a local

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[6]Alan Barcan, *Social Science, History and the New Curriculum*, Hicks Smith, Sydney, 1971, pp. 30-39 provides a useful summary of those difficulties.

[7]D. G. Dufty, "History, Social Science and the Social Studies Subjects", *Teaching History*, Vol 5, Dec. 1971, p. 9.

[8]David Shortle, "Piloting the New Social Studies", N.S.W.H.T.A. *Newsletter*, No. 1 1971/72, p. 20.

[9]Dufty, op. cit., p. 3.

[10]Op. cit. See also Alan Barcan, "History, Social Science and Social Change", N.S.W.H.T.A. *Newsletter*, No. 1 1971/72, pp. 23-31.

example. Again in the study of current social/political problems parallel examples from the past, even the remote past, can be used to give depth and perspective to such investigations — the *Harvard Public Issues Series* and some of the modern history syllabuses of various British Examination Boards[11] show how this can be done and done well. If one's concern is with man's creative-cultural life then a programme is evolved in which the vertical columns now become painting and sculpture, architecture, literature, music and science under the title 'integrated history'. This has been performed within the Centre for the Advancement of Teaching at Macquarie University.[12]

The synthesizing nature of history has been used to considerable effect in some recent junior history syllabuses: The South Australian course has as one of its goals, 'To help the student to relate to his contemporary world by developing his interest in his own and other societies through a broad approach which incorporates political, social, cultural and economic history without narrow limitations'.[13] Another objective of the same History course is, 'To integrate the study of human society; to break down some of the artificial barriers between subjects'.[14] Again, in Victoria the Education Department's History Committee has been developing aspects of the social sciences within its programmes so that History becomes a synoptic discipline.[15] This is not, of course, a new movement: The junior course in this State, which was framed some time ago and is now in need of heavy revision, is sub-titled Junior History and Civics and was obviously an early attempt to make history's contribution to social education as broad and as effective as possible. I note, incidentally, that the senior levels of History courses in some of the West German states are now entitled 'Social Studies'.[16] Altogether it is not surprising to find it sometimes said that History teachers can adapt very adequately to the new Social Studies/Social Science courses at the junior secondary level.[17] This does not mean that History teachers should be forced to take individual responsibility for Social Science/Social Studies courses which are, for example, mainly sociological in orientation, as the N.S.W. and S.A. courses seem to be, if they have not been trained in this discipline.

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[11]See, for example, the East Anglian Regional Examinations Board's History Syllabuses in Althea Lyall ed., "History Syllabuses and a World Perspective," Longmans, London 1967.

[12]L. T. Hall, *Teaching of Integrated History in Secondary Schools*, Centre for Advancement of Teaching, Macquarie University 1971.

[13]*Junior Secondary History Curriculum*, Educ. Dept. of S.A., 1971, p. 3.

[14]Ibid.

[15]See Ian Whelan, "History Teaching in Victoria: directions of change", *NICSSE Occasional Paper No. 2.*

[16]Lyall ed., op. cit., contains details of the *Gemeinschaftskunde* (Social Studies) courses in North Rhine Westphalia and Berlin, pp. 95, 96.

[17]Thus Dr. B. F. Harris has recently written, "Sociologists are speaking with considerable deference about History, pointing out that many of the best in their ranks were originally trained as historians, and that a capable History teacher, given a Social Science syllabus and a minimal briefing, can go off and do an excellent job wearing the new hat". "History-Humanity or Social Science", N.S.W.H.T.A. *Newsletter*, Nov./Dec., 1971, p. 5.

By pointing out the adaptability and comprehensiveness of History I am not suggesting that History teachers have grounds for engaging in border warfare with, or imperial expansion against, their colleagues in the social sciences. Similar claims for the integrating potential of other subjects are frequently made. In any event some valid criticisms can be levelled against the principle of integrating within a particular discipline and there are, as we know, other valuable integrative frameworks for evolving an interdisciplinary study. My point is simply that our discipline, as a result of its comprehensiveness and adaptability can continue to make a valuable contribution to social education. It is quite unfair to judge History in terms of its traditional content at the school level which was, to use Sir John Seeley's phrase 'past politics'. This notion now belongs to an earlier era.[18]

On the other hand, it can be argued that to use History's comprehensiveness as an argument is, to some extent, defensive. The more pertinent task is to demonstrate what is unique to the subject so that it can be seen as a vital component in an interdisciplinary programme. There is little point in arguing, for example, that History can develop certain research techniques when much the same can be said for other disciplines. In the recently published *Social Science and the School Curriculum*, F. J. Hunt[19] alludes to what he sees as the differences between History and the various social sciences:

> The social sciences . . . involve a study of issues, problems, policies and behavior of individuals and groups in *contemporary* society; they involve people and groups who are active and who may react, rather than people and groups who can be known only from documentary sources.
> The particular issues of the present relate primarily, then, to the process of drawing upon social science disciplines, with their objectivity and inquiry orientations, in the examination and discussion with primary and secondary pupils of complex, sensitive and potentially explosive situations and problems of society.[20]

Although that which distinguishes History from the social sciences will constitute our discipline's most substantial contribution, the differences set out by Hunt require some qualification. History, like the social sciences, is inquiry oriented, the problem of objectivity is not new to the discipline and indeed historians have agonised over it for a considerable period. Documentary evidence, the material of History, has by its very nature, enormous limitations but the research techniques of the social scientist have, no doubt, their own inbuilt restrictions. The prime distinction which Hunt draws is, of course, the superficially basic one: The social sciences deal with the present, with living people, with the 'real word of the child' while history deals with its past. This distinction needs to be closely examined and it is an examination which is quite central to our discussion.

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[18]History's old reputation, nevertheless, dies hard. In his *Social Science and the School Curriculum*, F. J. Hunt avers that History has been little influenced by the "so-called 'newer' disciplines. In History, emphasis was given to political aspects", p. 9.

[19]Angus and Robertson, Sydney, 1971.

[20]Ibid., p. 121.

History has a much more vital role to play in school studies of society than merely providing a brief, descriptive background to present day problems. If the junior secondary child is to consider questions which, no doubt, have very real significance to him like, What is an Australian? How are Australians different from other European peoples? Why do we have an aboriginal problem? Why do so many Australians live in cities? Why do we seem so dependent upon the United States? How and why are Asian peoples so culturally different from us? Why is Japan, our main trading partner, the most industrially advanced country in Asia? then History has, for the child, very real contemporary importance. It is perfectly trite to say that an understanding of the present does not begin and end with the present and yet, in the light of the heavy emphasis upon 'presentism' in some of the new Social Science/Social Studies courses, the patently obvious needs to be declared. Thus F. J. Hunt writes, 'Sociology and Anthropology might prove more congenial as integrative frameworks from the viewpoint of pupils and teachers . . . for they have potential advantages in a primacy of concern with the present, in contrast with History'.[21] In contrast to this assumption regarding the educational interests of children it is perhaps worth mentioning that there has been no mass flight from History, at the senior level, by modern youth, that some in fact continue to display interest even in the remote past, if rising enrolments in Ancient History be any guide and that research indicates that junior secondary children find considerable interest and enjoyment in learning about periods distant in time from the present.[22] Of course the fascination and relevance of History is well recognised by the man in the street if the explosion of popular historical publishing, the wide audience which historical drama attracts, the burgeoning of local historical societies and the almost voguish support for the National Trust be any guide.

History must play a vital role in school studies of society for otherwise such courses will become unbalanced and incomplete. One of its great advantages is that it will enable children to see the present in some perspective, provide them with the 'long view' which is extremely important at a time when mankind appears to be beset with a multiplicity of problems. Perhaps our 'problem age' might comparatively, in part, be an impression created by the effectiveness of the omnipresent media, a great broadening in educational opportunities, increased leisure time and rapid developments in social and personal analysis. Although it is hardly a reason for apathy one has only to review some of the great catastrophes of the past to feel at least some satisfaction at living in the present in spite of the materialism and insecurity of our age.

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[21]Ibid., p. 8.

[22]See, for example, statistics cited by Barcan which show a very significant increase in the number of candidates taking Ancient History for the N.S.W. Higher School Certificate, in *Social Science, History and the New Curriculum*, p. 67. R. N. Hallam in "Piaget and Thinking in History" refers briefly to a number of research studies which demonstrate the interest of children in the remote past. For example: "The appeal of the distant past to children was found by Musgrove, who discovered among 228 children 'a consistent average preference for history remote in time. This was so at all ages between 10 and 15, with boys equally with girls,' and in secondary modern as well as in grammar streams'. Martin Ballard ed., *New Movements in the Study and Teaching of History*, Temple Smith, London 1970, p. 167.

History could temper the development of an unreal utopianism, the search for instant remedies to some of the profoundest problems which have beset mankind over historical time. Perhaps History will enable youth to see the limitations of contemporary judgment and the considerable human distance between programmes, policies and ideologies and their successful implementation. As Arthur Bestor has put it, 'Preoccupation with contemporary affairs, in programs of social studies, deprives young people, in effect, of the ability to profit from the whole past experience of mankind'.[23] Such a preoccupation will also, of course, deprive the child of a knowledge of his cultural tradition and an essential chronological social framework in which to place his studies of so many other subjects in the school curriculum.

Every age is egocentric and our own at least as much as any other. Nowadays the term 'new' is extremely fashionable and indeed we even have the 'new' history. In a comparatively recent study George Mowry writes, 'The word "new" occurred with astonishing frequency to describe all manner of changes . . . The "new" theology, the "new morality", the "new woman", the "new immigration", the "new city" . . . few political programs and tracts dared not include in their descriptive title an allusion to their uniqueness and their novelty, the "New Nationalism", the "New Freedom", . . . the *New Republic and the New Democracy*.'[24] Mowry was not describing the 'new age' in which we live but the United States at the beginning of this century. There are, of course, many examples from periods of history more remote than a mere seventy years ago when man was extremely impressed by the alleged uniqueness of his particular era. One of the purposes of History in schools might be to show that modern man and his society is not so completely unique and that there are still many lessons to be learnt from the past.

J. H. Passmore has commented that one of the important roles of history is 'to destroy that provinciality of time and place to which we are all subject, to help us to see possibilities, possible forms of life, to which we would otherwise be blind, possibilities which, as it were, "set off" the present as distinct from merely providing a background to it.'[25] We would hope that through historical studies children might gain knowledge of, and develop desirable attitudes to, mankind's legacy and the debt of contemporary society to it; man's needs and his various responses to them; the nature of change and progress; differences — ethnic, cultural, political, religious and even chronological; truth and the purpose of historical studies.

I also think that our subject might act as a very important human and inteilectual counterpoise to the orientations of the newer social sciences. At its circumference History adopts some of the approaches of the social sciences, at its centre it belongs to the humanities. It is much more sensitive to the value of scholarly intuition, judgment and even conjecture, much more

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[23]"History in the Secondary School", in Martin Feldman and Eli Seifman eds., *The Social Studies, Structure, Models and Strategies*, Prentice-Hall, Englewood Cliffs 1969, p. 184.

[24]George E. Mowry, *The Era of Theodore Roosevelt and the Birth of Modern America 1900-1912*, Harper, New York 1962, p. 2.

[25]"History Today" *Teaching History*, Vol. 2, part 3, Oct. 1968, p. 8.

concerned with the force of ideas. It holds in some doubt the extent to which man in society can be quantified. Gone are the days when historians generally would proclaim, after Bury, that history is under the governance of laws. They are both 'impressed and depressed' by the techniques of their social science colleagues who as Eisenstadt has exclaimed, 'vigorously postulate hypotheses, define areas for inspection, set up charts, classify IBM cards, make the chemistry of human action a matter of quantitative analysis . . . If the historian sees method in their madness, he also suspects madness in their method'[26]

Eisenstadt, of course, overdraws the situation. The newer social sciences are providing us with valuable insights into man in society and they have had considerable influence upon our discipline. Nevertheless, the distinction remains and it is an important one. History as a humanitarian study has a vital role to play in the social education of the child. This is surely highlighted by the assertion of F. J. Hunt that 'A social science inquiry can examine the characteristics of values and the conditions under which they are held, or otherwise related to, but there is no basis in social science for judging the goodness or rightness of values as selected end-states. A social scientist . . . can not comment on the worthiness of the ends in themselves'.[27] Again, 'Social scientists can study expressive activities as aspects of social activity and in terms of their socio-cultural significance but again, as with values, there is no basis in social science for commenting upon their worthwhileness as ends in themselves'.[28] To the historian this must seem a coldly 'scientific' approach to the affairs of men.

In the past few years there has been a considerable re-examination in this country of the nature of the social education provided by schools as a result of changing community needs, the development of disciplines which give newer perspectives to the study of man in society and the refinement of curricular techniques which apparently make quite ambitious programmes possible. The preparation of children for society is unquestionably a basic function of the school and the new approaches are therefore of considerable importance. I hope that I have adequately shown in this brief paper that our discipline must continue to play a vital role in this task. It would really be extraordinary, and indeed dangerous, for a child's education to proceed in substantial ignorance of mankind's past.

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[26]A. S. Eisenstadt, "American History and Social Science", in *The Craft of American History*, Harper 1966, Vol. 11, p. 118. G. R. Elton has been intemperate enough to say, "the study of history may be said to serve a vital purpose when it combats the overconfidence of the men who see the world as categories and statistics and think in jargon", *The practice of History*, Sydney University Press, 1967. p. 39.

[27]Hunt, op. cit., pp. 18-19.

[28]Ibid., p. 19. For an interesting account of the limitations of the social sciences in school programmes see G. Johnston, "The Scientific Study of Society: A Discussion of Limits and Alternatives", *Australian Journal of Education*, Vol. 14, No. 1, March 1970, pp. 57-65.

PRIORITIES IN TERTIARY EDUCATION

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It is by now a platitude, especially to this audience, to draw attention to the increasing demands of education on national resources. From time to time State ministers in other fields get extremely irritated at what seems to be the bottomless pit of requests for funds for education. There are never enough resources to meet all the demands in all aspects of national welfare, and certainly not enough to meet the needs or desires of the educational sector. These demands are growing rapidly in the non-tertiary sector, from pre-school through secondary and technical school. If any massive effort is made to meet these requests, it seems very likely that one result will be a squeeze on the tertiary sector.

Within the tertiary sector, there are already competing pressures. The universities had their hey-day from the establishment of the Murray Committee in the mid 1950s to the later 1960s. After the Martin Report, the Colleges of Advanced Education began their honeymoon period, and others can say better than I how long that is likely to continue or whether they would regard it as now over. Teachers' Colleges are at present the section of tertiary education which receives less favourable treatment than the C.A.E.s or the universities. It is not easy to justify these discrepancies on any fully rational basis. A lot seems to have happened by historical accident, pressure groups, special interests of political leaders and so on. If resources for the total tertiary sector are to be squeezed even more than now, it becomes most important to determine priorities for the allocation of those resources, and to determine them on the most rational and intelligent basis.

How then does a person find out what priorities are at present governing the allocation of resources within tertiary education in Australia? I know of no way except to look at explicit statements of priorities from authoritative individuals or bodies. For example, the Federation of Australian Universities Staff Associations directed a request to the Commonwealth Minister for Education and Science concerning an increase in the number of university scholarships. In a reply dated 27th August, 1971, the Minister said, amongst other things: 'Priorities have to be established within the framework of the amount of funds available to the Government for its scholarship programme. This year priority was given to increasing a number of Commonwealth Education scholarships'[1] That is just one small detailed example of an authoritative statement of a particular priority. There are many other such authoritative people or bodies — indeed, so many that one might reasonably wonder to whom one should listen for an overall statement of priorities. Besides the Commonwealth minister, and the Secretary of his Department, there are the six State Ministers and their Directors-General; there are the many and

[1] *Vestes* XIV, 3.

increasing commissions, the A.U.C., the C.A.C.A.E., the Victorian Institute of Colleges, the Tertiary or Higher Education Commissions which operate in at least four states. Besides these, there are such groups as the Australian Vice-Chancellor's Committee, the Principals of Colleges of Advanced Education, and of Teachers' Colleges. Within such groups, any individual principal or Vice-Chancellor is a figure of some authority, and his comments on tertiary priorities carry some authority. So do those of, for example, Professors of Education, or of Physics, or Engineering, or Administrative Studies, or other people in comparable positions, even perhaps including so irrelevant a figure as a Professor of Classics.

In this plethora of more or less authoritative bodies and individuals, all are sectional interests; that is to say, they all represent either a particular state or a particular institution or a particular level or a particular discipline. There does not appear to be any person, or any institution whose responsibility it is to reach a consensus on priorities. That extends even to the Commonwealth Minister and his offices, who desclaim responsibility for certain areas of education and certain proportions of expenditure on the grounds that these are the responsibility of the States, or of some other bodies.

Does this matter? Do we need a nation-wide set of priorities for tertiary education? Could we possibly get one? I do not know the answer to that last question; but my answer to the first two is, Yes — we do need to establish priorities, it does matter. The resources available in this nation for education are limited, and there are massive claims in other areas than tertiary education. Unless we work out priorities for using the resources which come to the tertiary sector — that is, unless decisions on their use, on what gets promoted and what gets deferred and what gets dropped, are taken by discussion and rational argument in relation to valid goals — then the decisions will be taken for political expediency, or individual aggrandizement, or inertia, or a host of irrational and unworthy motives. In tertiary education we are developing the use of the intellect; we ought ourselves to use it in our own affairs.

Yet if one were to try to establish priorities in using the resources available to tertiary education, and in trying to get additional resources, one would first have to determine criteria by which to assess competing claims and guide the priorities. What is tertiary education for? Indeed, leave off the preposition: what is tertiary education? At present in Australia it includes universities, Colleges of Advanced Education and teachers' colleges. Does it include all post-secondary education: technical education, nursing education, adult education? Should it? Is it really best to take young people straight from school into another formal institution for several more years of bookwork? Might it not be better to move much more towards the nurse's type of mixture of study and practical work, or to part-time study while in full employment, or to sandwich courses or some other programmes? But then you are back in the realm of criteria: better for whom, better for what, better on what standards? What is tertiary education for?

For the purposes of this paper I take tertiary education, as I think many other people do, to be education in institutions which require for admission an acceptable level of attainment in a full secondary school course; over-

whelmingly, that means universities, CAEs and teachers' colleges and not the other sectors mentioned above. These institutions serve a variety of purposes. They frequently develop further the individual student's knowledge and understanding, perhaps his total personality; for many students this stimulus and enrichment of their own lives is the most important work of the institution. However they also prepare people for jobs and certify their competence; to many, both students and employers, this is their most important function. Both these aspects are of value not only to the individual but to the total society, in providing it with trained manpower for a wide range of necessary occupations and in raising the level of intellectual life in the society. The Martin Report's first chapter discusses all this more fully. Tertiary education serves the individual, the job-market and the whole society, and criteria for determining priorities should take account of all three values.

For example, we have heard much discussion these last few years about the 'uselessness' of Arts graduates, the difficulties they have in finding employment. There is a problem, and there are people working at it; but the studies in a Faculty of Arts are, by and large, not straight vocational studies, and nobody — not employers, not Cabinet Ministers, not students — should think that they are. The major purpose of a Faculty of Arts is to assist a student's self-actualization, his general education and personal development; this has value both for employment and for society as a whole, and the aca emics are at fault if they do not have these things in mind, but they are not the prime purpose of the Faculty. The more weight we give to the 'job-training' criterion, the less priority we would give to studies in the humanities (and indeed in many science areas); the more weight we give to the 'self-actualization' criterion, the more we would devote resources to safeguarding this value even in thoroughly vocational courses of education.

Another criterion is special advantage to this country or special opportunity it offers for a particular study. On these grounds one could make a case for high priority for coral-reef studies and tropical studies in Queensland, or astronomy, or the sociology of immigration, or arid-land agriculture or Indian-Ocean scientific and social studies in W.A. A contrasting criterion is special lack, the desirability of fostering something weak or lacking in the Australian educational scene such as human ecology or Slavonic studies or air and space law or African studies.

All these criteria need to be taken into acount in determining priorities for use of resources: special lack, special opportunity, personal development, vocational utility, social welfare. To these one must add the obvious ones of cost and feasibility; space technology or Arctic agriculture are fascinating and worthwhile studies for the Soviet people; but they are too expensive and infeasible for us. The corollary of these criteria is a list of non-criteria, arguments which ought not wash. For example, one does encounter occasionally the line: 'Every self-respecting university/college/faculty/department has a nuclear accelerator/Faculty of Medicine/electric typewriter'; there are good arguments in favour of any of those things, but that argument is not one; it is simply keeping up with the Joneses, and that is a certain way to foul up your priorities, in academic as in private life. An interesting question is how far demand should be taken as a criterion. For example, far more students

want to enter Faculties of Medicine than get in; should that be accepted as an argument for establishing more Faculties of Medicine? When you have answered that, substitute 'universities' for 'Faculties of Medicine' and ask the question again. Should the answer be the same to both questions — 'yes' to both, or 'no' to both? Can it be 'yes' to one and 'no' to another? Are there other factors, other criteria involved?

Although I have mentioned cost as a criterion, I would add that the simple statement: 'We can't afford it' is another non-argument, in itself. We can afford almost any given thing, if we want to, if we give it high enough priority; look at television, or the F-111. We are already engaged in some very expensive areas of teaching and research. The whole point of priorities is to decide what things we do want to afford. We can afford to do almost any given thing, but we certainly cannot afford to do all the things we would like to do.

So far my criteria and my examples have been in terms of courses of study; but there are other aspects of education, and these too furnish criteria and questions for judgment. One result of tertiary education, and as far as many parents and pupils think, a major one, is social mobility—the graduate generally gets an income and status higher than the non-graduate, so that tertiary education is seen as a way to material and social advancement. This is thought to weaken class barriers, to give the rewards to talent and hard work rather than to inherited wealth or family name or some other measure used in other societies; most people, I believe, regard this as a good thing — or at least, most of the people who study it and are aware of it think so, and by chance, most of them have received tertiary education. If tertiary education has this effect, and if it is a good effect, it offers another criterion: will such and such a measure promote social mobility or hinder it? This applies most obviously in questions related to entry to institutions rather than to courses offered once inside. Do our admissions requirements, our prerequisites and quotas and aggregates foster social mobility or hinder it or are they neutral? I believe it true to say that this question is hardly ever considered by tertiary institutions as such, though it is by some individuals within them. Few measures, so far as I know, are taken by institutions deliberately to achieve an increase in mobility; Latrobe's experiment in admitting a handful of non-matriculants, Queensland's suggestion that aborigines should receive privileged conditions of entry are perhaps such measures; but in Australia as a whole there is nothing remotely comparable to the entry schemes for the under privileged commonplace in the USA, or to the British measure of the Open University.

If you start applying this criterion, some odd priorities emerge. For example, we have seen a campaign lately to abolish fees for higher education; the campaign is based precisely on this value, of social mobility, to ensure that the son (and more so the daughter) of the poor man is not shut out from an education and opportunity which only the rich can afford. I hope I do not need to say that I heartily approve of the value; but the most thorough examination of the proposal which I know[2] suggests that abolition of tertiary

[2]Brennan, H. G. 'Fee Abolition: An Appraisal' *The Australian University* 9,2, July 1971.

fees would benefit the affluent, would make no impact on the seriously or moderately deprived, and would actually benefit only a very few marginal cases. Most of those who don't get to tertiary education are not held back for lack of a few hundred dollars but for lack of a few thousand. Most of those who never even consider tertiary education or couldn't be considered for it on the standards at present applying in Australia have been seriously deprived in home background, family life, economic circumstances, early schooling, even prenatal nutrition. Real 'equality of opportunity' means a major social transformation which will take years, not a few million dollars at the point of transition from secondary to tertiary education. By all means press for what can be achieved in the short run, such as more money for more generous scholarships for the marginal cases; but be aware of the real dimensions of the problem, if you take social mobility as a criterion. Indeed, one might well make a case, that, apart from the national good, simply for the good of tertiary education itself, it might be better to spend a given amount of resources on secondary education, or pre-schools, or housing or other measures of social welfare.

There is another aspect of this. For many years, one priority which I believe has been consciously and explicitly operating in the policies of Australian universities has been to promote full-time study and to limit or banish part-time or external study. As a matter of statistics, part-time students are on average of lower socio-economic status than full-time students; they see tertiary education as a way of improving that status, as a path of social mobility; therefore, if we accept this criterion, should we not be trying to extend the opportunities for part-time and external studies, not limit them?

You have probably been misled by the title of my paper into expecting me to give a list of what the priorities in tertiary education should be. That might not have been easy but it would certainly have been facile — one man's ill-informed opinions condensed into a half-hour paper. I have rather taken the line that there are no clear and agreed priorities operating, and there should be; I have tried to give criteria on which such priorities should be assessed. I stand by those criteria, but I should be surprised if they are the only ones, if nobody thinks of more, and I hope people will. (I take for granted, though perhaps I should not, the common-sense guidelines — don't duplicate facilities unnecessarily, locate them for optimum use, use them to their economic limits). This is simply an attempt to provide a frame-work for constructive discussion on priorities. On my criterion of 'special lack', this seems to be a very special lack in Australia — a lack of debate about priorities, a willingness to accept historical accident and sectional pressure as the determinants of educational policy. We do not have that constant high-level debate about goals and methods of tertiary education which is so marked a feature of life in Britain or North America. When we do get stirred on the subject, it is over failure rates, or fee-abolition, or the examination system; and most of the discussion, to their credit and not to mine or my colleagues, is provoked and sustained by students. There is not anything worth the name 'debate' on the question of who should go to tertiary education. California says anyone who wants to, and some of America has reached universal higher education; our Martin Committee said 25 per cent; has there been any debate

since then? Yet we turn away increasing thousands each year, from universities and CAEs and teachers' colleges. What should we be doing — expanding the system or restricting the entry further?

This is a question of criteria and priorities. If one takes as a dominant criterion that education is a good in itself, that the individual's self-development should be limited by nothing except his own capacity and will, then you set a high priority on expanding the system to absorb all who want to come; realising also that the process is self-generating, that the more who come, the more there will be who feel they should; the 'sheepskin psychosis', as it is termed. If you let the needs of society be the dominant criterion, as I believe we do with entry to medical schools, you limit entry to predictable demand (with a prudent margin) or stimulate supply where it seems to be deficient, and you concentrate on raising quality while limiting quantity; and you run the risk of truly classic blunders. Six or seven years ago I heard one of the most senior of educational administrators berating the universities for not producing enough Ph.D.s in Chemistry; two years ago I heard an industrialist reproaching us for not producing enough geologists. I wonder if their sons are in those fields and looking for jobs now?

We need more debate on that issue, and some approach to a policy of priorities there. But when we have some line on how many receive tertiary education, there is the question: who goes there? What kinds of tertiary institution do we build? What relative priority do we give to general education and to vocational education? Are those types of education supposed to correlate to the two institutions, universities and CAEs?; because they don't. What about Teacher Education? For years many of us have felt it should have a higher priority than it has; but suppose the predictions of a number of experts are true, and the teacher shortage is about to disappear as it has in Britain, Canada, USA — would we still want more and bigger teachers' colleges for an intake beyond the needs of the market? If not, why not? Do we believe that teacher education is only a vocational training and not a general education that some people would like to have, as many people have studied Law, without any intention to practise?

We need more debate on the timing of higher education. Should it come straight after school, to enable the youngster to enter a job as soon as possible? Or should it come after some time, for the student's own maturation? Should it be full-time? I have touched on that question from one point of view, that of social mobility; but there are other criteria such as the personal development of the student, which folklore says is enhanced by the opportunities which full-time study offers. If we combined the desirability of later entry to tertiary education with the desirability of full-time study, we should be aiming for a policy of full-time study on full salary, which the Commonwealth Public Service does for a very limited number each year.

I have drawn my criteria from the functions of tertiary education: it develops the mind, gets one a better job, trains the people whom society needs, contributes to social mobility and can exploit the special opportunities or redress the special disadvantages in society; if these are what it is for, then we should assess priorities against these standards. But are there other possible

functions not at present active in Australian tertiary education? For instance, formation of attitudes and values? Many of us hope that our graduates emerge with respect for truth and the views of others, with intellectual courage and honesty and sincerity and enterprise and mental balance. Is it one of the functions of our institutions to develop these qualities? If so, should we test and assess these things? Should we reward them? All our awards go for success in academic attainment, and our whole enterprise sometimes seems like a vast intellectual competition with little regard for other aspects of human life; many school report cards carry space for assessment of the pupil's non-academic development and contribution, and most letters of recommendation touch on the same area, but I have never seen mention of this on the transcripts from any Australian tertiary institution. Should it be there? Is that another criterion by which to assess the priorities of what we ought to be doing, how we ought to distribute our resources?

One could say that our first priority in tertiary education is to study what the priorities should be. Being from Canberra, and a Commonwealth man, I would say that this is clearly a task for the Commonwealth. The Martin Committee did something of this kind, but the Martin Report is now many years old. Our situation has changed in many respects since the report, and in some large ways because of that report. It surely is time for another look at what we are trying to do and should be trying to do in tertiary education in all sectors, and what our priorities should be. I do not believe that this can be laid down once for all, and I would hope that a continuing debate could be established in this country on this subject. To my mind, the obvious body to initiate and sustain such a debate is a National Educational Advisory Committee, as proposed at the Thirteenth Annual Conference of the Australian College of Education. The terms of reference of this committee would go far beyond tertiary education, but that is all to the good, since priorities for tertiary education cannot be considered without regard to the other sectors. Possible modes of conducting the debate are suggested by Dr. H. S. Williams in his paper to the same conference (Title: 'Assessment of Priorities') in which he mentions Canadian techniques and describes his own use of the Delphi technique for a comparable purpose. It can be done; and it needs to be done.

HUMAN VALUES: A PRIORITY IN AUSTRALIAN EDUCATION

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The title of this paper begs a number of important questions. What, if anything, are values? Are there those which appropriately may be referred to as human? Are such values uniquely so? In what sense may or should these 'human values' be a priority in Australian education? What are the immediate practical consequences of making such an assertion? It cannot be the province of this paper to provide a complete and authoritative answer to these questions, but it is essential that consideration is given to them, even if only to provide a descriptive framework within which the central argument of the paper may be presented.

Firstly, then, 'values'.

Historically the terms 'value' and 'values' have been viewed from three major different perspectives. In economic theory the value of a good is measured by the quantity of other goods for which it will exchange. Various theories have been proposed to explain the forces controlling the relative value of particular goods. One is the labour theory of value. Labour alone is the unvarying standard by which the value of all commodities may be compared.[1] Other writers, notably J. S. Mill,[2] relate value to the cost of production, others to a particular good's usage and hence to a demand for its supply. It may be apparent that an immediate corollary of theories of this kind is to see value as an 'objective' quality, something which is quantitative and measurable. The value of a good is its price, in creature life and effort or in expenditure of its own or another good's resources. For example, the value of a ball-bearing may be five cents or one thousand hours' work within a ball race or its availability at twenty-four hours' notice or one hour of an adult male's labour time. However once we aver that a ball-bearing is 'beautiful' or 'good' or even 'indispensable', 'value' takes on quite different connotations. An element which is at least not obviously objective has been introduced. Psychological and philosophic considerations of the theory of value have accordingly been as important as the economic, especially from the nineteenth century.

The contribution of psychological theories of value, in contrast to the economic, has been to place emphasis on the subject, the person valuing, and to ask: 'What goes on in consciousness when valuing takes place?' The tendency here is to assume that value and the feeling of value are one and the same, i.e. value is a quality of an object which involves any sort of appreciative

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[1]Smith, Adam, *The Wealth of Nations*, edited by E. Cannan, New York, Random House Inc., 1937. Note especially Book 1.

[2]Mill, John S., *Principles of Political Economy*, edited by Sir W. J. Ashley, London, Longman's, 1909.

or interested response in a subject. Alternatively any appreciative or interested response constitutes an object having value. Thus psychological theory emphasises the subjective aspects of value without providing any answers to questions of the objectivity or absoluteness of values. It does however lend weight to the pragmatist's conception of the presence and role of values in human experiences to which we shall refer shortly. Two particularly significant current areas of research are those into the processes of changes in values that people hold or feel for particular objects[3] and into sociologically based differences in the values people hold.

It has been the lot of the philosophical consideration of value to attempt to resolve the broader question of the claim of values to possessing an objectivity which is different from the rather relative nature of the economic concept and the subjective psychological concept.

The classic philosophic tradition originating with Plato and Aristotle had claimed for such qualities or attributes of material objects as beauty and goodness an objective reality equal and even superior to other attributes such as size and weight, colour and taste, but the development of the empirical method and approach seriously challenged these claims. If colour and even shape are dependent upon people's perception, then much more are attractiveness, propriety and goodness dependent upon individual feeling and taste. Immanuel Kant[4] mediated between these two positions by contending that although value attributes may not be treated as existent in the same sense as physical objects, nevertheless their reality must be postulated if life and action are to be made meaningful. It has since been the task of logicians and linguistic philosophers to explain what consitutes meaning and meaningfulness.[5] When we come to use the terms value and/or values, then, how are we to define them and are we to define[6] them in such a way as to cover all the

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[3]For example, Festinger, L., Katz, D., (eds.), *Research Methods in the Behavioural Sciences*, New York, Holt, Rinehart & Winston, 1953.
Cohen, A. R., *Attitude Change and Social Influence*, New York, Basic Books Inc., 1964.
Zimbardo, P., Ebbesen, E. B., *Influencing Attitudes and Changing Behaviour*, Reading, Mass., Addison-Wesley, 1969.
Insko, C. A., *Theories of Attitude Change*, New York, Appleton-Century-Crofts, 1967.
Rokeach, M., *Beliefs, Attitudes and Values: A Theory of Organization and Change*. Michigan, Jessey-Bass 1968.
Keisler, C. A., Collins, B. E., and Miller, N., *Attitude Change*, New York, John Wiley, 1969.

[4]Kant, I., *Critique of Practical Reason*, tr. by T. K. Abbott, London, Macmillan, 1923.

[5]For example, Carnap, R., *Meaning and Necessity*, Chicago, Cambridge, 1947.
Quine, W. V., *Methods of Logic*, New York, Henry Holt, 1950.
Wittgenstein, L., *Tractatus Logico — philosophicus*, tr. by G. E. M. Anscombe, Oxford, Blackwell, 1967.

[6]One definition is offered by the Good Neighbour Council of Victoria: "Value orientations are complex but definitely patterned (rank ordered) principles, resulting from transactional interplay of three analytically distinguishable elements of the evaluative process — the cognitive, the affective and the directive elements — which give order and direction to the even flowing stream of human acts and thoughts as these relate to the solution of 'common human problems' ".
Good Neighbour Council of Victoria and Commonwealth Department of Immigration, *Survey of Youth in Victoria*, folio, Canberra, 1967.

above uses (some would say 'classes') of the terms, or to refer only to one area of usage (or class)? There is considerable disagreement amongst scholars over the relationship between the presumed different kinds of values, for example economic, logical or cognitive, moral or ethical and aesthetic. For the purposes of this paper I propose to use the term 'values' in a general way to refer to any feelings and beliefs which humans hold with reference to themselves and other aspects of human experience and to do so primarily within a moral context. But the fundamental question still confronting us in any consideration of values, particularly in such a case as the present one where certain values are to be proposed as deserving of priority is the means by which we may validate them. If we are not able to assert their obsolute nature in any ultimate logical sense we have little alternative but to conceive of them in the Kantian sense of their relation to life and its enhancement and to see this as the ultimate value. It is this latter approach that will be adopted in this paper.

I assume values to exist in the sense that they are operative in human minds and actions and are embodied in various social institutions, not the least of which is an education system which believes in providing 'a free compulsory and secular education'[7] for all children in Australia up to the age of fifteen years. In addition, the values which I shall propose as of importance in Australian education are values which have been held and are held by past and present human individuals and societies. That they are worthy of proposal and have some claim to the status of 'absolute values' is itself a value judgment based on the belief that they are necessary to the continued coherent functioning of human experience.

There is one additional perspective I should like to consider — the sociological.

Not only at the level of formal academic theory has relativism and a scepticism about absolutes taken root and grown. Probably ever since Western society began to emerge from the Dark Ages, certainly since the Renaissance and the Reformation there has been a steady decline in the authority of one of the most coherent and influential belief (value?) systems in the history of mankind — that of the Christian Church. Western Christianity had been responsible, amongst other things for two main lines of influence on thought and behaviour. The first the existence of a God, an absolute to whom all human affairs were referable. The second the existence of a set of standards whose validity derived from the existence of God. Both tenets have been largely denigrated in formal and popular conception — the second not merely because of its relation to the first, but because of its apparent inadequacy to cope with the ever increasing range of complex situations with which it was asked to deal. How, for example, it has been asked by both theologians and non-theologians can one reconcile 'Thou shalt not kill' with both the life of the mother and the unborn foetus in situations where the act of inducing abortion or not doing so is likely to result in the death of the one or the other?

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[7]Portus, G.V., *Free, Compulsory and Secular: a critical estimate of Australian Education*, London, O.U.P., 1937.

The sense of holding to untenable 'absolute' principles has more than any other influence been responsible for the development of the situation approach[8] in current secular and Christian ethical thinking. Love is the basic principle, but various criteria are suggested to determine what loving behaviour is appropriate in given situations.

A similar change has occurred in the relatively stable social structure of prior centuries. Whereas once it may have been appropriate to refer to two or even three relatively clearly defined classes, each with its own relatively stable and unique value patterns covering the whole range of human experience, the accumulation of wealth by others than those born to it, the influence of educational opportunity and its consequent upward social movement, and the considerable proliferation of occupations particularly the development of tertiary industry have had far reaching consequences upon the structure of society and on the close relation of particular values to the once clearly defined strata.

Despite conceptual and methodological difficulties, the research that has been done in Australia in the last fifteen years into popular values is considerable.[9] Studies have been conducted into the values placed on politics and party activity, education and school achievement, various kinds of occupation, religious belief and a wide variety of specific issues such as the Vietnam War, prostitution, abortion, marriage and various cultural pursuits.[10] Not all the studies have been concerned to relate their findings to some stratification scheme, and the results are difficult to integrate into an overall picture, but there is considerable evidence that a wide range of values is held by the members of the Australian community and that these values continue to vary according to certain social variables, albeit more complex ones. One such variable is the fact of whether the individual person's social position is estimated by himself, or by a trained observer. Perhaps the most interesting findings then are those[11] which still support the theory that different social strata do have dissimilar value systems or personality orientations, and differ in the degree of their differentiation of particular factors associated with any

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[8]Fletcher, J., *Situation Ethics*, London, Westminster Press, 1966.

[9]Connell, R. W. et al; "A Descriptive Bibliography of Published Research and Writing on Social Stratification in Australia, 1946-67", *Australian and New Zealand Journal of Sociology*, 1969, Vol. 5, No. 1, pp. 48-76, and Volume 5, No. 2, pp. 128-152. Note especially Section 111, parts 14 and 15.

[10]For example, Davies, A. F., and Encel, S., "The Mass Media", in Davies and Encel, *Australian Society, A Sociological Introduction*, Melbourne, Cheshire, 1965, pp. 205-229; and
Main, J. M., "Painting — Taste and Market", ibid., pp. 176-189.

[11]For example, Malson, M., *The Effect of social class membership on certain aspects of School Performance and Educational Expectations of Students and Parents in the Geelong Area*. Research Bulletin No. 1, Monash University, 1965.
Hughes, A., "Authoritarian Orientation, alienation and political attitudes in a sample of Melbourne Voters", in *Aust. and N.Z. Journal of Sociology*, Vol. 3, No. 2, 1967, pp. 134-150.
Katz, F. M., "The Meaning of Success: Some Difference in Value Systems of Social Class", in Katz, F. M., Browne R. K. (eds.), *Sociology of Education*, Melbourne, Macmillan, 1970, pp. 308-316.

given issue. No comprehensive research such as that by M. L. Kohn[12] in the United States exists in Australia, but detailed findings such as his, replicated here, would have far reaching implications for any attempts to inculcate certain values, particularly uniformly amongst all students or members of the total Australian population.

To portray a rather negative picture of any Western society has been a fashionable, even chronic habit since T. S. Eliot's 'Wasteland',[13] but hopefully it is not a complete one. There is still general apathy and a prolonged reaction is still going on against restriction, misuse of authority, hypocrisy, dogmatism of any kind and mass conformity, and there are relatively few movements towards constructive action. As Max Harris commented recently[14] there has never been such a worthy cause as that of the conservationist — anti-pollutionist cum ecologist, but he expresses deep cynicism over whether anyone is actually doing anything. It is nevertheless possible to see in this cause, perhaps even in the cries of the Student Left and the Union of Secondary Students the beginning of a new interest in the welfare of man and the worth of every human being based on humanistic and scientific principles instead of avowedly Christian ones. But, asserting the existence, the desirability, even the validity of human values should make us aware of the difficulties of translating them into consistent or universal human behaviour.

What human values have a claim to priority in such a varied conceptual and social climate as the one I have outlined?

There are four which I believe would be supported by Christian, Humanist and Ecologist: individual autonomy and integrity, tolerance and respect for others, inquisitiveness after knowledge, beauty and understanding and a commitment to an interpretation of human existence. These four elements represent the quintessence of the Hebraic and Hellenic traditions which Matthew Arnold[15] saw as fundamental to Western democratic society.

The great dogma of the pietistic tradition stemming from the Reformation has been the right of the individual person to obtain salvation from his sins through the atonement of Christ by a personal act of faith rather than through the formal sanction of the church. A similar dualism has developed in secular politics where two traditions, the democratic and the totalitarian, the ascending and the descending[16] are now broadly opposed.

Personal wholeness is a fundamental ideal in Western culture and lies at the very heart of a system of education designed for all, yet the literary[17] and

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[12]Kohn, M. L., *Class and Conformity. A Study in Values*. Illinois, The Dorsey Press, 1969. — Employing a multidimensional index of class, Kohn found in his major study that social class was consistently related to fathers' values for their children and the higher their class position, the more highly they valued self-direction and less highly conformity to externally imposed standards. This relationship held true regardless of race, religion, region of residence, and the age and sex of the children.
[13]Eliot, T. S., *Collected Poems, 1909-1962*, London, Faber, 1963.
[14]Harris, M., "Things more urgent than detergent", in *The Australian*, Saturday, March 25, 1972, p. 14.
[15]Arnold, M., *Culture and Anarchy*, ed. J. Dover Wilson, Cambridge, C.U.P., 1960.
[16]Ullman, W., *A History of Political Thought: The Middle Ages*, Penguin, 1965.
[17]For example, Camus, A., *The Outsider*, tr. by S. Gilbert, Penguin, 1961.

psychiatric[18] and radical testimony[19] of the present is of man's sense of his alienation — of a lack of meaning and purpose behind his existence. If we are not to reassert with assurance the great Christian tradition of man's inherent worth before God, and the desire of God that he should mature to the very 'fullness of stature which was in Christ',[20] then we must offer a substitute. At least one source of that substitute is the ecological concern for the future of human society unless human individuals display a more responsible attitude both to themselves and those around about. If the democratic principle is to be maintained, then each member of the society must be responsible for his own actions. The alternative to self-government is imposed government — of far greater severity than that at which current objection is aimed.

But the pietist Christian tradition, at least in its most noble conception, is not a self-centred one — a danger facing any assertion of the worth of each individual. The individual does not seek his own welfare per se. The motivation is the love of God. This same motivating source prompts him to a concern for others that is both deeper than and prior to his consideration for himself — yet it does not deny his own fulfilment — rather his own is indirectly achieved through his unselfconscious giving to others. The ideal of Christian autonomy and integrity and brotherly love is the ability at any moment spontaneously to place the welfare of another before one's own, and to conceive of his needs as of prior importance. The basis of such ability and desire is a response to the sense of divine purpose behind human existence and continued intervention in it, supremely through the person and work of Christ.

The Hebraic cum Christian heritage is an inherently moral one and one whose basic terms of reference, as we have previously observed, we have largely rejected. Provided that the ideals we establish in secular terms are no less, and we believe that no less need be achieved by natural man's unaided efforts, then, at least in secular terms we may hope to be satisfied.

As the Hebraic tradition is inherently moral, and religious, the Hellenic is essentially cognitive and aesthetic. But the two are not exclusive, rather they are opposite. Man's incessant yearning after knowledge and understanding, even beauty is at the heart of the Genesis story. It is also largely responsible for its rejection in more recent times. It is here, however, even more than in the moral sphere that we encounter the difficulties observed in the first part of this paper. What is Knowledge? What is Beauty? What is Truth? But for individuals to ask these questions, even if no ready answers are provided or evolved, is to have commenced to a very large degree, the search for knowledge and understanding that in some ultimate sense ought to be the province of each human being.

There are two suppositions in the foregoing which have been of concern since Platonic times and should concern us here. The first is whether or not

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[18]For example, Rogers, C. R., *On Becoming a Person: A therapist's view of psychotherapy*, Boston, Houghton-Mifflin, 1961.

[19]Many writers are influenced by the works of Herbert Marcuse, for example, Marcuse, H., *One-dimensional man*, Sphere Books, 1968.

[20]Paul, Letter to the Ephesians, Chapter 4, v 13, *The Bible*, authorised version.

all individuals are capable of possessing the values we have outlined and hence may be freed of many of the demands of categoric law and externally imposed standards.

Many educators and students at the present time are stressing the need for greater involvement of students in the process of their own education and for a more liberal approach that is non-authoritarian and less dependent on rules. If this is to occur, then it rests upon something like the following argument. All men are capable of being responsible and autonomous. If they have not been so, it is the fault of the system which has taken away their individuality. As soon as the shackles of social heredity can be removed and forgotten, new and hitherto hidden potential will emerge. The experience of responsible self-determination is its own guarantee of continuance. The failure of population or pressure group appointed leaders to act in an exemplary responsible manner in no way depreciates the positive ideal. It is the accumulation of power in a system based on the exercise of power rather than love which has been at fault — not the ideal itself of a basic individual responsibility that is educable.

The fact that the sociological and psychological research to which I have referred[21] runs counter to the ideal is also not seen as any obstacle. Man's sense of alienation, his historical failures and his present sets of values are due to the absence of the right methodology and appropriate experience rather than to any innate deficiency in mankind as a whole or in individual men. Even Orwell's views[22] have been subsumed by critics to such a doctrine. It is well however for us to remember Plato's conception of society[23]. Only the philosopher Kings were able to fulfil in themselves, the purity of vision of the ultimate good.

Hitherto our education system has been accused of creating and nurturing an academic élite, and opinions and research have been divided over whether this has been due once again to innately differing abilities within individuals such as intelligence, or different environmental opportunities such as those provided by the home, the surrounding community and the period of relative social immobility of both. Perhaps the result of the present proposal will be to create a moral or 'value' elite. There is some sociological evidence that the two go together. It may well be the result of some of the liberalising practices now occurring in particular schools.

The crux of my argument then is this. On whatever foundation — theoretical, historical and practical — we base our conceptions of fundamental human values such as those I have suggested we have to assume either that all men are capable of possessing those values given the right conditions or at least that they are capable of doing so to some extent — an extent sufficient to validate the attempt and make its non occurrence unthinkable. The implications for research are tremendous. But research will only be of use if it is done

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[21]Especially that of M. L. Kohn, F. M. Katz and C. R. Rogers.

[22]Because he champions the nonconformist. E.g., Orwell, G., *The Road to Wigan Pier*, Penguin, 1962, and *Inside the Whale and Other Essays*. Penguin, 1957.

[23]Plato, *The Republic*, tr. by F. M. Cornford, Oxford, Clarendon, 1942.

employing common conceptions and terms of reference and is replicated again and again over a long period.

In what sense are human values to be prior in Australian education?

The second supposition which I mentioned is that it is possible at all to educate people to hold certain values, at least through the offices of some formal education system. Are there 'right' conditions or practices which will operate to achieve this aim, particularly where the entrants to the system already hold values which are different from and even contrary to those which we desire them to possess? Is it through knowledge or experience or persuasion? It seems to me that there is one underlying condition — the values must be felt and shared by every person committed to the task of educating, whether as teacher or administrator. It is quite futile to speak of educating others in human values when schools, teachers and students and organizational procedures are treated with caprice, cynical indifference and selfish apathy. Examples of such malpractice at every level of our educational system are too numerous to discount.

Is the school therefore the appropriate agent for educating in values? If we are, as I believe, at the initial stages of such a programme, it is the only possible one. Party Government, (except perhaps certain opposition members in South Australia) has long ago denied any responsibility, even attempting to suppress any of its vassals such as the A.B.C. who dare attempt to assume it. Homes are of course prior even to formal education but we may rely on them only in succeeding generations if we are successful now and in any event, many students do not have homes.

Besides general observations of the school's socialising role, however, there are more weighty reasons based on the research of Piaget[24], Davies[25] and Connell[26] which demonstrate a child's psychological capacities, especially the stage at which he acquires concepts and is capable of performing certain operations of thought. Briefly Piaget's work posits a perceptual pre-school and early school stage where the child acquires experience. This is followed by a concrete stage in which the basic concepts acquired are related and structured, and a third stage, roughly corresponding to the secondary school period, where the child can readily deal with possibilities and more abstract conceptual relationships.

I am not aware of any Australian research done specifically into the development of personal values, but Davies' and Connell's work into the development of children's class consciousness, that of Davies into nationality

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[24]Piaget, Jean, *The Construction of Reality in the Child*, tr. M. Cook, London, Routledge & Kegan Paul, 1968.

[25]Davies, A. F., "The Child's Discovery of Social Class", *Aust. & New Zealand Journal of Sociol.*, Vol. 1, No. 1, 1965, pp. 21-37.
Davies, A. F., "The Child's Discovery of Nationality", *Aust. & New Zealand Journal of Sociol.*, Vol. 4, No. 2, 1968, pp. 107-125.

[26]Connell, R. W., "Class Consciousness in Childhood", *Aust. & New Zealand Journal of Sociol.*, Vol. 6, No. 2, 1970, pp. 87-99.
Connell, R. W., "The Child's Construction of Politics", Carlton, Melb. Univ. Press, 1971.

and collective values and that of Connell into the growth of a child's political awareness may provide us with some suggestive parallels. Their research supports in different ways a criticism sometimes levelled at Piaget's theory[27] that he underestimates the child's ability to relate concepts and classify information at an early age. The most striking contribution is Connell's when he suggests that children develop a detailed interpretation of class without a firm consciousness of their own membership. The patterns of belief they do have about their own position seem independent of their families. Davies supports the more long-standing view of the influence of the home, but they are agreed on the relatively firm schemes already established by children of twelve years of age. If further research into the acquisition of values supports Connell's findings of the comparative freedom of the child from exact identification with his parents in class and political self-concept, while he is still young, the school's role is rendered of much greater significance. In any event the task of preschool and primary school, here as elsewhere, becomes of paramount importance in introducing the child to those concepts and experiences which will most contribute to a sense of himself and others, and most of all in fostering his basic curiosity and eagerness after knowledge and novelty. The secondary school cannot hope to train self-direction and develop a responsible attitude towards each other child and adult and towards the acquisition and interpretation of knowledge if it has to act in vacuo or only in a compensatory way. Compensation must occur early if it is to occur effectively at all.

But the Secondary School task, if based on a firm foundation presents unique opportunities because of the individual child's ability to grapple with abstract thought and hypothetical relations. If in primary school the child learns the concept of love — love is smiling, love is feeling kind to people, love is not getting angry when someone spills ink on his work, love is giving his morning recess snack to the poor child in his own class, then at secondary level he can grapple with questions such as: 'What does it mean to treat another person in a loving way?' The stage of commitment to a view of life and of the purpose of human beings in it is very near and should be reached by the end of an initial period of tertiary study or occupational experience.

Again historically we have had at the heart of our education system, especially at secondary and tertiary level where the burden of teaching 'skills' is allegedly not so great, a tradition of education in the Humanities, or in the liberal arts. Despite the growth of science and utilitarian demands for useful and/or relevant education, we have not wholly lost this tradition. The continued place of literature and the development of general and integrated studies courses ensures that this is so and at least provide the basic material to help our students' experience into the kind of framework we have advocated.

But the formal curriculum of our schools and the organizational practices must not merely be directed towards educating in values by formal experience, they must themselves express them. There are many instances of the trap we have set ourselves by surrounding the notion of education with a kind of mystic self-validation and failing to ask: 'What kind of education?' or 'Why education?' at regular intervals since our initial affirmation of its purpose and worth. Teaching and parenthood are supreme creative acts — acts of ushering human beings into the priceless opportunities of human existence. Because of

their familiarity we have so often fallen into the temptation of treating them with contempt — and this contempt must necessarily be directed towards ourselves as well as towards those under our care.

The prime purpose of this paper has been simply to assert the need for the recognition of human values as an integral part of life, past, present and future, and to place them in the very forefront of Australian education as the content and the mode. 'Education is for life'. Education is bringing people, both children and adults to an awareness of citizenship, not merely in their country, not even in the world, but in the whole concourse of human existence. In itself this is a value judgment. It may be derogated as such. It may also be commended because validated by the only 'absolutes' we have, the presence of human experience, and the value of human life.

I should like to conclude with three statements from people whose views may perhaps be more influential than my own.

'The real business of education', said Mr Beasley, the shadow Minister for Education of the Federal Labor Party during the recent 'Great Debate, on Australian Education', 'is to deal with the will, with decision making, with values'. But an Adelaide citizen, writing to 'The Advertiser'[28] after the debate felt that in spite of the debate's success, a broader statement of this fundamental point was continually missed. He quoted Lord Eccles, the former Minister of Education in the United Kingdom, as saying in his recent book: 'Before a beginning can be made with a decisive improvement of humanity, a conviction is needed that life has greater objectives than present human interests and social convenience". The letter concludes: "Our educators and policy makers owe it to the Australian public to make known their personal conviction as to the suprahuman significance of life or its alternative'.

My final quotation is taken from an essay by a student in my Matriculation English class this year, who when invited to write about any issue which represented to him a matter of great personal and social import, wrote concerning 'The Tragedy of Man' and concluded his essay with these words.

'I am not advocating a new political system . . . What I advocate is an overhaul of the human mind. I believe that people should be educated not to be apathetic to what happens and what will happen around them. So far I have mentioned problems of racism, conservation, pollution, ecology, dehumanisation in routine, political corruption. I have also touched on education, war, accepting things without question, class and money, work, tradition, law and morality. The basic explanations for problems facing us today are apathy, intolerance and greed. If only people would not brand the thinker as "idealist" and not heed his logic. If people would stop hiding behind the excuse "We can't change, it's human nature", and change. Perhaps then we could begin to find our place in nature . . . I believe man has the potential to save himself, but it will be hard.'

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[27]Almy, M. C., Chittenden, E., Miller, P., *Young Children's Thinking: Studies of some aspects of Piaget's Theory*, New York, Teachers' College pr., Columbia Univ., 1967.

[28]Letters to the Editor, *The Advertiser*, Monday, April 10, 1972, p. 5.

TEACHERS—A FORGOTTEN PRIORITY

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Eighty years ago (it is recorded) a certain institution, Columbia Teachers' College, applied for affiliation with Columbia University, and was refused this recognition because 'there was no such subject as education.'[1] And today, as Philosophy of Education students well know, there is still some unwillingness to accept education as an academic discipline. Today, too, if there is tolerance of university schools of education, and in some places an elevation of teacher colleges to the status of degree awarding institutes 'of Advanced Education', there is in practice little regard generally for the profession of teaching, and in many instances the teacher in the community feels that he ranks almost as a non-person.

In the nature of things I am speaking to a group of teachers and others concerned with *the education enterprise*[2] — that wonderful phrase from Vatican 11's document on education, — to a group of people so eminent that they have been admitted as members and fellows of our august college — and definitely not non-persons! But as a teacher of forty eight years experience in the classroom, as a headmaster of boarding and day schools, and as a lecturer in education and director of young teachers, I wish to put before you the exigencies of the situation of many members of our profession who are not so fortunate; who are overpowered by

> 'the weariness, the fever and the fret'

of class room stresses; the Rosencrantz and Guildensterns of education who can say

> 'I am the essence of a man spinning double headed coins, and betting against himself in private atonement for an unremembered past . . . '[3];

who are paralyzed by fears and exhausted from nervous fatigue — in a word who are education's forgotten priority, teachers, men and women, old and young, in need of administrative pastoral care.

Are there many such teachers? It has not been possible to obtain statistics specifically applicable to this problem, but that there is significant unrest and unhappiness can be validly inferred from the reports of the media, whose headlines alone mirror an anxiety neurosis that is fairly widespread. Banner lines, like *Appalling Decay in Teacher Morale*,[4] *Children being Taught Useless*

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[1]Professor L. N. Short: What Do We Teach? in Publication by the Education Research Unit, University of N.S.W., No. 5, 1967, p. 1.

[2]Vatican 11: *Declaration on Christian Education*, par. 1.

[3]Tom Stoppard: *Rosencrantz and Guildenstern are Dead*, early in Act 1.

[4]*The Sydney Morning Herald*, Jan. 27, 1972.

Knowledge,[5] *Teacher Education is Lunatic — Professor*,[6] *Image Factor in Teacher Crisis*,[7] *Moral of Teachers at Danger Point*,[8] reflect a malaise that has rubbed off from the profession to the general public.

Unfortunately, there is little empathy; and, on the contrary, the dissatisfied teacher can feel himself fitting into a kind of stock character 'exposing the schoolmaster's sense of personal failure, but even more his awareness of inadequacy in the face of evil hiding somewhere in the corners of privilege in his structured, hierarchic boy's world.' I have quoted from a well known critic's review of a recent play.[9] Knowledge of such and unlovely image has its own inherent danger. The inhibiting effects are accentuated by the attitudes of the more sophisticated children, and a self-respecting teacher is tempted to resign. Even trainee teachers, before graduation, become vaguely aware of this climate of opinion, and leave for the avenues of employment. In New South Wales the latest figures show that about 15 per cent of teachers under bond resign *for what is designated as personal reasons*, including dissatisfaction with service, and unsuitability to teaching.[10] In an Australia-wide study of 3,000 students in education, law, engineering and medicine, who began studies in 1967, it was found that by the end of 1970, 50 per cent of those following education courses wished to leave before the bonded period was finished! 'It is clear', states the Report of the Committee of Enquiry into Teacher Education (N.S.W.), 'that the image of teaching which prevails on the university campus is not an attractive one.'[11]

In these post McLuhan times everyone, including the teacher, is aware of the competing forces of the media with the conventional classroom situation. And although modern teacher colleges are preparing their students to meet the changing trends, there is a time-lag between theory and practice, and older teachers have not been trained to cope with the revolution in curriculum and method and the challenge of the media. There is a break down in communication— often the prelude to neurotic behaviour in the dedicated teacher. His status role becomes confused. He is in the throes of an identity crisis.

The present eroticisation of society has introduced yet another difficulty — teachers now have to cope with pupils whose sexuality has been prematurely and insistently aroused — a circumstance not very conducive to academic concentration; and with this upsurge of vitality there is amongst youth a strong tendency to express classroom frustrations by restlessness, and even insolence, that parallels the demonstrations and riots on the tertiary campus. The conscientious teacher is gripped by the current uncertainty as to how to handle each recurring crisis, and gradually *an anomic factor* seems to prevail, an absence of law and order, a failure in strong leadership, a feeling that things are drifting towards chaos. Few schools appear to be entirely free of this

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[5]*The Sydney Morning Herald*, Jan. 7, 1972.
[6]*The Australian*, Sept. 8, 1971.
[7]*The Sydney Morning Herald*, Sept. 22, 1971.
[8]*The Australian*, Sept. 7, 1971.
[9]H. G. Kippax: *Review of Twenty Six Efforts at Pornography* (by Carey Harrison, son of Rex Harrison) in S.M.H., Sept. 8, 1971.
[10]Report of Committee of Enquiry into Teacher Education (N.S.W.), p. 50.
[11]Ibid., p. 60.

syndrome, but it is, perhaps, more prevalent in big city schools. Organisational problems tend to induce staff to be slow to use formal authority for any reason whatsoever, and to tolerate lower standards of discipline and attainment for the sake of personal security — an 'I'm not sticking my neck out' philosophy.

* The young teacher ('Mr. Novak' image) finds himself more or less in a state of shock. Many of the ideals set before him in college now seem to be unattainable. On the one hand he is faced with a tentative defiance from rowdy adolescents not much younger than himself; on the other hand he can see no support for any stand he might take from his senior and more experienced colleagues. What to do?

* The ageing teacher (not yet quite the 'Mr. Chips' type) finds himself unable to cope with situations he has never before experienced or imagined. He discovers that the powerful magic of his eye now has no force, his personality carries no persuasive powers, his leadership is questioned, his authority flouted, his scholarship ignored, his rapport with his pupils almost nil. In extreme cases he suffers in the classroom something approaching a living death — a death of the spirit and the loss of the charisma that once sustained him.

* The middle-aged teacher (of the 'Prime of Miss Jean Brodie' vintage) may find himself caught in the education machine, unable to extricate himself. He may adopt an 'If you can't beat 'em, join 'em', policy. He may lose his sense of dedication and his sensitivity for the welfare of his pupils. In short, he could become the worst possible school master — the boring teacher.

It is unnecessary, I think, in this paper to discuss the more obvious causes of teacher discontent — salaries, work-loads, staffing, buildings, equipment, libraries, teaching aids, and the rest. These sources of dissatisfaction are not unendurable, and, indeed, will always, like the poor, be with us. I am dealing with what I suggest is a basic cause of defection and unhappiness amongst teachers — the *angst*, the self-emptying, the personal frustration, the lack of public encouragement and recognition, the failure to achieve, the rejection of one's affection — frightening, tangible experiences which only the courageous can withstand.

Education administrators have, therefore, a problem. It is not merely a matter of pragmatic approach nor of comfortable expediency. Good teachers are being either lost or destroyed, at the rate of about 10 per cent per annum according to statistics (which I here append) for primary people allowing for the inevitable ambiguity that arises from 'personal reasons;' and at a higher rate for secondary teachers.[12] Can we tolerate the laissez-faire attitude of administrators and of teachers in the field who rationalise their position and accept the *'sint ut sunt aut non sint'* oracle to deaden any qualms of conscience?[13]

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[12]Official Hansard Report — Senate: Standing Committee on Education, Science and the Arts, Sept. 1, 1971, p. 462 et seq.

[13]An adaption of Francis Borgia's classic reply to people urging him to change the Jesuit's way of life.

I have three cases for possible discussion to illustrate my point:

(a) Richard, a bonded secondary science teacher, recently graduated B.Sc., but loathing the lack of respect, the lack of discipline and any real desire to learn, amongst the children, feels there is no one amongst his colleagues who will help him. He has decided to leave the service at the first opportunity.

(b) Robyn, B.A., Dip.Ed., wanted to leave the service before ever stepping out in front of a class because of bureaucratic frustrations.[14]

(c) Angela, a bonded teacher and very capable, had severe physical trouble which brought abnormally long periods of depression. She failed to inform even her close friends of her condition, and was about to leave the service, when a friendly supervisor, noting the depression and loss of ego, eventually, persuaded her to see a gynaecologist. Subsequent psychotherapy produced a restoration of confidence. (She was helped very much by the talents of Messrs. Simon and Garfunkel:

'Sail on, silver girl, sail on by
Your time has come to shine . . .
Oh, if you need a friend, I'm sailing right behind.
Like a bridge over troubled water, I will ease your mind.')

The French have coined a name for the state of mind which is systematically pessimistic—'sinistrose.' It could well be the name of the malady of our time. It used to be accepted that in such a professional climate the proper procedure for an individual was to resort to the Defence Mechanism technique, to endeavour to see humour in the most trying circumstances as in the current story that is going the rounds: Two friends are discussing the conjugal problems. 'My wife', says the first, 'dreams every night that she is married to a millionaire.' 'You are lucky,' says the other, 'My wife has exactly the same dream. Unhappily, it is in broad daylight!' Such a technique is only a temprary palliative. The remedy, I suggest, lies with administration.

Nor is it of much avail for distressed teachers to reflect on the phenomena of the present age of liberty and freedom and to console themselves that its philosophy has not yet split their ranks. Brilliant considerations like those recently offered by a Sidney Hook, or by a Germaine Greer, do not restore confidence in someone cut down to dwarf-size by classroom tensions and frustrations.[15]

I should like to see an educational administration imbued with, and motivated by , the ideal of pastoral care. Over the last century educational ideas have converged on a child-centred philosophy of education — and rightly so — but no great concern has been shown for the personal happiness of the teacher. If education is so important, if so much public money is spent on it, surely some official, pastoral interest in the teacher is called for. This is all the more important these days when freedom in curricula and new vital

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[14]The Sydney *Bulletin*, Feb. 5, 1972, p. 38, discussed Robyn's case, amongst others, in an article, "Trained teacher will travel".

[15]Cf: *Quadrant*, Nov.-Dec., 1971, p. 42 et seq.

methods depend so much on the quality of the teacher. Let me suggest a few general principles along which some progress may be made:

* The ethos of the inspectorate — as of all aspects of educational administration — should be consistently one of reciprocal friendship and care. Teachers, old and young, should feel free to reveal their difficulties in their classroom situation, and feel confident that something will be done to help alleviate their trouble. Teacher morale will be thus developed.

* Recognition and practical encouragement should be given to teachers, especially to those working in trying circumstances. This must be practical, and involve for example, financial support and pay-rise increments, opportunity for study and flexibility in arrangements.

* Teacher morale must be maintained. The teacher's self-image must be so fostered as to help him withstand the ordinary upsets of life in the school community, and renewed efforts should be made to improve his public image.

* The recent recommendations of the James Report on Teacher Education in Britain could form a starting point for the official, determined and effective improvement of teacher status in the community.[16]

* Fear of inadequacy can inhibit teachers at all periods of life. No teacher should be given tasks that he personally cannot manage.

* Fear of loss of discipline and of consequent disrespect should be given consideration by administrators, and it should be remembered that *no teacher* likes to admit to this very personal failure, and that it comes more or less permanently to many at various times in middle life. This is an occupational hazard which must not be ignored. On the part of administration, both at local and departmental level, there should be more earnest study of the epidemiology of maladjustment without what one writer calls wildly imaginative therapeutic methods which could offend personal dignity.[17] There is a whole mental prophylaxy of middle age crises for men and women which should be effected, where necessary, by the authorities, not excluding the psychopathological care of menopausal and andropausal troubles.[18]

* One therapeutic process that is often efficacious in the case of a teacher's loss of identity is the use of the 'cognate subjects' idea which allows a teacher who feels confident in one area to extend his influence, without full class responsibility, into other spheres of school activity.

* Another measure is the offering of suitable challenges with appropriate financial reward to highly intelligent and gifted teachers irrespective of seniority. Professor Goldman believes that people with the highest intelligence and the greatest initiative are the people who are most frustrated by the system, and seek to leave it.[19]

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[16]A summary of this report appeared briefly in *The Sunday Australian*, Feb. 6, 1972.

[17]Clarizio, Craig and Mehrens: *Contemporary Issues in Educational Psychology*, (Allyn and Bacon, Inc.), Boston, p. 603.

[18]Malachy G. Carroll: *The Crisis of Middle Life*, (Mercier), p. 36.

[19]Hansard Report of Committee of Enquiry into Teacher Education (N.S.W.), Sept. 7, 1971, p. 80.

* The problem is basically one of *morale*, not an easy one because of its complexity and subtleness. The growth matrix becomes more complex day by day. Remedial measures cannot come too soon. They call for research. They cry out for immediate and practical implementation.

> 'It is more important to win the battle to form men than to compete in the arms race to destroy them.'[20]

'We must have,' said Jacques Maritain on one occasion to Jean Cocteau, 'a tough mind and a tender heart.' With all its arrogance and display of strength the youthful school population has a basic need, craving to be satisfied — the need for discipline. The more experienced teachers should support the authority of the young recruits and enhance the prestige of their older colleagues, thoroughly establishing them in the respect of the children, helping them to maintain poise. Pastoral counselling should inspire all.

A more positive, personal conviction of the morale-strengthening therapy of the human relations aspect of the school faculty, a willingness to close the ranks in a bond of sympathetic identification with the life of the school, a tolerant effort to narrow the gaps that allegedly separate the Chips, the Brodies and the Novaks, teaching as a team (not exactly, in this context), Team Teaching—this will generate courage, and a confidence that comes of being accepted. It will inaugurate a second honeymoon, a new vocation, a more mature dedication. It will eliminate the deflating role of cynical pundits in school staff rooms.

It will restore to education the first class teachers that all children deserve. It will preserve for the greatest profession of all the professional competence to which all pupils are entitled. It will give *priority* to the best men and women of our time — our dedicated teachers.

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[20]Pedro Arrupe, general superior of the Jesuits, quoted in *Social Survey*, Kew, Victoria, Feb. 1972, p. 7.

*I have written at some length on this subject under the title, *Thoughts on the Unthinkable*, in a series of articles published in *Our Studies*, over the years 1963-1966. There does not seem to be any reason to modify the conclusions that were then worked out.

PRIORITIES WITHIN ABORIGINAL EDUCATION*

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The view taken in this paper is that it is not possible to determine priorities within Aboriginal education, if one uses the term 'priorities' to mean a definite order in which problems should be tackled. If, however, one interprets 'priorities' in more absolute terms as indicating urgent and necessary measures, then it is possible to identify priorities in this field of education.

THE AUSTRALIAN SETTING

The major priority with respect to Aboriginal education seems to me to lie, initially, not within Aboriginal education itself, but rather within the total Australian society. Stated simply, the major need is for the dominant culture within Australia to recognise, accept and value cultural diversity. If this orientation prevailed, Australia might seek to attain what Kenneth Gibson, Major of Newark, wished for America:

> 'A nation of racial, ethnic and religious diversity, a mosaic of pluralism where each contributes what is unique, where each knows and honors his own roots and can, therefore, be secure enough to honor what is different in his neighbor.'[1]

I would suggest that, until there are this acceptance and valuing within Australia of the Aboriginal cultures, Aboriginal children will grow up within a climate which is inimical to their optimal development.

There is a further likely consequence of the attitude of the dominant culture towards the place of minority cultures. Where the latter are not fully accepted, the prevailing educational philosophy will be such that programs and priorities within Aboriginal education will be determined in the light of their probable success in overcoming perceived deficits in the life styles and characteristics of the minority group; the emphasis will be directed towards helping the Aborigines to become more like white middle-class Australians. Such a philosophy embodies a restricted view of society, an unwillingness to conceive of the potential advantages to all groups in the society of the existence of a rich diversity of peoples within the national boundaries.

This philosophy leads, then, the members of the dominant group to assess the minority cultures in terms of deficits rather than of differences. The major educational 'problem' is seen as one of developing in the Aboriginal children characteristics which will enable them to learn in the same way as white

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*The emphasis within this paper is upon non tradition-oriented Aborigines and part Aborigines. The term "Aborigines" is used to include those of full and of partial Aboriginal descent.

[1]Gibson, K. 1971 Commencement address delivered at Jersey City State College. Quoted in Fersh, S. Orientals and Orientation. *Phi Delta Kappan* L III, 5, January 1972.

middle class Australian children. A philosophy which, on the other hand, led to an orientation to difference rather than deficit would define its 'problem' otherwise; the 'problem' would become one of understanding how these children might learn most effectively and of devising new teaching strategies, at present not included in our repertoire of known approaches, which would capitalize on the strengths and orientations of Aboriginal children. The result would be the devising of positive programs for Aboriginal children to replace the present attempts to devise compensatory programmes. Bernstein[2] is one who would urge this more positive approach:

> 'The concept "compensatory education" serves to direct attention away from the internal organisation and the educational context of the school, and focus our attention on the families and children. "Compensatory education" implies that something is lacking in the family, and so in the child. As a result the children are unable to benefit from schools.
>
> 'It follows, then, that the school has to "compensate" for the something which is missing in the family, and the children are looked at as deficit systems. If only the parents were interested in the goodies we offer, if only they were like middle class parents, then we could do our job. Once the problem is seem implicitly in this way, then it becomes appropriate to coin the terms "cultural deprivation", "linguistic deprivation" and so on. And then these labels do their own sad work.
>
> 'If children are labelled "culturally deprived" then it follows that the parents are inadequate; the spontaneous realisations of their culture, its images and symbolic representations, are of reduced value and significance. Teachers will have lower expectations of the children, which the children will undoubtedly fulfil. All that informs the child, that gives meaning and purpose to him outside of the school, ceases to be valid or accorded significance and opportunity for enhancement within the school.'

THE EDUCATION OF ALL AUSTRALIANS

The prevailing philosophies of a society are to be found reflected in the education programmes offered to the children of that society; the emphases within those education programmes help determine the values which the graduates will espouse in their adult lives. This dependent relationship between the schools and the surrounding culture could argue the need for school changes if we wish our society to move towards an acceptance and value of cultural diversity.

In particular, there is need for schools to introduce their students to a knowledge of the cultures and ways of life of traditional Aboriginal Australia. Such knowledge must extend beyond superficialities and beyond mere technological aspects of the cultures; it must embrace their total richness. The aim must be to generate understanding and appreciation of the Aboriginal heritage.

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[2]Bernstein, B. 1970 Education cannot compensate for society. *New Society*, No. 387.

Schools must, too, enable all pupils, Aboriginal and non-Aboriginal, to examine contemporary Aboriginal cultures; pupils from each ethnic group, through the schools, must be helped to understand members of the other ethnic group. The children should be helped to understand the existence of prejudice within Australia. If they examine, in a meaningful way, as part of their social studies program, the traditions and bases of prejudice[3] in this country, hopefully those who graduate from the schools in the near future will be more knowledgeable about and more understanding and accepting of those whose ethnic heritage is different from their own.

Unless the total education system plays its role in this way, it is unlikely that improvements within the narrower field of Aboriginal education will lead to any long term benefits to Aborigines.

THE LIFE ENVIRONMENT OF ABORIGINES

It was suggested earlier that education programs for Aborigines need to have a 'difference' rather than a 'deficit' orientation. The Aboriginal sub-cultures in cities, towns and rural areas do have distinctive values and life styles which should find reflection in the school programmes. In addition to their Aboriginality, however, many (perhaps a majority) do manifest symptoms of the poverty of culture.

Appreciable numbers live out their lives in an environment which is poverty-stricken: they have a less than adequate share of the material benefits of a modern technological society; they live in conditions of gross over-crowding, larger families or groups of families in small houses or flats creating a high accommodation pressure; social disorganisation and disintegration are prevalent; family instability is high; employment patterns are frequently unstable; health and nutritional status are impaired. Aboriginal families such as this live on the fringes of the affluent society, separated by a vast social distance from the on-going life and rewards of the majority society. The material quality of life for many is thin; preoccupation with the stress of living robs them of the opportunity or the desire to pursue life vigorously, to develop their potential abilities, to live competently and confidently. Many feel overwhelmed by their life conditions, powerless to effect any real change in their circumstances.

A number of commentators on the disadvantaged scene have pointed to the fact that, for families such as these, many of the problems lie beyond the homes and school, in the surrounding community. While these conditions obtain, the families have little emotional energy or freedom to pursue self actualisation for themselves and for their children. The stresses which they face are frequently too overwhelming for the people themselves to feel able to take positive steps to ameliorate their life condition so that they might pursue

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[3]E.g. Western, J. S., 1969. The Australian Aboriginal: What white Australians know and think about him — a preliminary survey, *Race*, X 411-434.
Taft, R., 1970. Attitudes of Western Australians towards Aborigines. R. Taft, J. L. M. Dawson, and P. Beasley. *Attitudes and Social Conditions*, A.N.U. Press, Canberra.

a way of life which, while reflecting their own values and orientations, assures mental and physical health and well being.

The Model Cities Projects, currently developing in the United States through federal funding, recognise the multifaceted nature of the problems of disadvantaged. The planners of these projects recognise, too, the impossibility of helping the people to help themselves in narrower areas of, say, education or housing or health, unless there are concurrent improvements in all facets of their lives. A 1969 statement described the Chicago Model Cities program. The aims expressed in this statement typify the aims of these projects across the United States.

> 'The Chicago Model Cities programme aims at developing viable communities providing the capability for individual achievement and the opportunity to participate in all the benefits of the City. Higher levels of education, income and participation will contribute to increased individual self-sufficiency. Programmes to attack the basic causes of social and economic deprivation are balanced with higher levels of services and co-ordination to support the development of families and individuals. Environmental improvements provide both short and long range benefits.
>
> 'Effective citizen participation is a key element . . .
>
> '. . . Programme components include health, education, housing, law, order, justice and correction, child and family services, economic development, environment, leisure time, manpower and transportation.'

This emphasis on providing support for the development of families and individuals needs, in my view, to be adopted within Australia before Aboriginal education can hope to be effective.

PRIORITIES WITHIN ABORIGINAL EDUCATION

I have suggested that Aboriginal education does not exist *in vacuo,* that the development of more effective education programs for Aborigines will be limited in their implementation and effect unless, as a group, the people are valued and understood by the majority group and unless their life conditions are ameliorated. If these pre-requisites are met, there is point in turning our attention to the education programme itself.

Indeed, one might be able to sustain an argument that if educationists understood the Aboriginal people — their similarities to and differences from the dominant group — the necessary changes in Aboriginal education would almost inevitably follow on.

I believe that there are priorities within Aboriginal education; yet I find it difficult to assign any order to these priorities. It seems to me that the needed changes are interdependent. For example, teacher education is an obvious priority; the teacher in the classroom is the critical variable determining the outcomes of Aboriginal education. Yet how can the teacher educators help prepare future teachers unless they have knowledge of teaching strategies which will be effective in helping the Aboriginal pupil to learn? Teaching strategies, in turn, require the support of specially designed and

appropriate resources materials. Can we focus our attention solely on the classroom and school environs? To do so would be to neglect the cultural context within which the pupils develop; their parents must be consulted, involved.

The comparative failure of our education programmes for Aborigines makes the need for action urgent. The interdependence of all the variables involved in the education process argues for a total re-look at Aboriginal education, for a massive, rather than a piece-meal, injection of funds and expertise, aimed at the creation and implementation of an effective education.

There follows a listing of areas requiring priority attention:

(a) Involvement of Aboriginal parents

The school cannot succeed in its endeavours when it tries to operate in isolation from the home. Likely consequences of such isolation are:

> a lack of understanding by parents of the goals of the school programme, its curriculum and strategies, and its relevance to the children's futures; a lack of understanding by the teachers of the parents' desires and aspirations for their children, of the home circumstances of the pupils, of the nature and extent of the children's out-of-school learnings;
> an alienation of the child from the school.

Overseas and Australian experience suggests a variety of approaches to involvement of Aboriginal parents and to recognition of the complementary roles of parents and teachers in the education of children: the development of schools as community schools; the training and employment of Aboriginal parents as paraprofessionals; the fostering of informal visits of parents to the schools; invitations to parents to visit the classrooms of their children, both to observe and to participate in the ongoing work; the setting up of tutorial programs for parents; school publications and magazines; exhibitions (graphic and live) of the work of the pupils in centres within the town accessible to parents; the extension of school staff by the appointment of home-school liaison teachers.

(b) A re-examination of the objectives of education

I doubt if any of us would wish to set up educational objectives for Aboriginal pupils (such as those being discussed in this paper) different from those we believe desirable for other Australian children. We would, however, by virtue of the children's ethnic membership, create special emphases within objectives.

Such emphases should, in my view, be placed on objectives such as: the development of self-esteem and pride in ethnic identity, the transmission and renewal of the cultural heritage, the development of skills of learning how to learn and of zest for learning.

(c) Curriculum and teaching strategies

I doubt again whether I would argue for a separate curriculum for Aboriginal education; rather, I would argue for certain changes in the curriculum for all Australian pupils; these changes would be guided and in-

formed by the fact of cultural diversity.* Some areas of needed change, for example, include:

> *Language arts:* the production of multi-ethnic readers; the inclusion of Aboriginal myths and legends in the oral and written literature courses; an increased emphasis for all on communication skills.
>
> *Social Studies:* in Australia, the study of our cultural heritage to include not only the traditional study of the 'European' or 'white Australian' cultural heritage, but also the study of the cultural heritage of Aborigines; the study of culture-contact in this country; an increased emphasis on the study of contemporary inter-group relationships, aimed at affective as well as cognitive objectives.
>
> *Creative, expressive and appreciation areas of the curriculum:* the inclusion of Aboriginal and migrant art and music in addition to aspects already included in school programmes.

Teaching strategies presently employed with Aboriginal pupils do, however, need modification. By virtue of the values of their own sub-cultures, the child-rearing practices of their parents and their own life situation, Aboriginal children exhibit characteristics different in many respects from those of middle class white Australians. The existence of these specific characteristics calls for the development of special and appropriate teaching strategies supported by special resource materials. The major aim in the development of these teaching strategies should be to create effective learning situations for the children. Havighurst[4] has argued a contract between home and school, whereby each undertakes to play a specific role in ensuring the educational progress of the children.

> 'The school contracts to receive the child, teach him as well as it can, taking account of his strengths and weaknesses, and the ways in which he can learn most effectively . . .
>
> '. . . But the schools generally fail also by failing to understand how the children of these families can learn most effectively.'

Research[5] indicates the need for the development of special strategies in areas of language development, particularly in respect to the mastery of an elaborated code; cognitive development, to help children achieve earlier than at present classificatory abilities and concepts of conservation; motivation, particularly the devising of strategies which will arouse existing motives in the service of school learning.

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*No specific reference is made in this paper to the existence of diverse migrant groups within the Australian scene; education programmes should recognize the existence of these groups and reflect their cultures in addition to white and Aboriginal Australian cultures.

[4]Havighurst, R. J., 1970. Minority sub-cultures and the law of effect. *American Psychologists*, 25, 4, 313-322.

[5]Teasdale, G. R. & Katz, R. M., 1968. Psycholinguistic abilities of children from different ethnic and socio-economic backgrounds. *Australian Journal of Psychology*, 20, 3, 155-159.

Dunn, S. S., and Tatz, C. M., 1969. *Aborigines and Education*. Sun Books.

Watts, B. H., 1971. Some Determinants of the Academic Progress of Australian Adolescent Aboriginal Girls. Unpub. Ph.D. thesis.

(d) Articulation between pre-school, primary school and secondary school

A survey of Aboriginal education in Australia shows the development of a number of creative and insightful innovatory programs designed to provide a more effective education for Aboriginal children. Yet many of these innovations are limited in their effect. They are limited in the sense that each reaches only a small proportion of Aboriginal children. They are further limited because of a lack of follow-through. Some Aboriginal children at pre-school level participate in specially devised programmes and then frequently pass on to primary schools which submit them to the traditionally ineffective programmes; before long the gains and benefits achieved in the pre-school diminish and wither away. Primary teachers work to develop skills, concepts and attitudes; the children are received by secondary schools unaware of what has been tried, of what has been achieved.

The need for communication and collaboration between successive stages of the education system is urgent.

(e) Teacher education

High priority must be accorded to the better preparation of teachers who will work with Aboriginal children in the classroom. In most states, the Aboriginal population is a scattered one; there are small enrolments of Aboriginal students in some schools, while other schools have significant numbers of Aboriginal students.

Some teachers' colleges, colleges of education and universities, have begun to offer special elective courses relating to Aboriginal education within their teacher education courses. Some students only select these courses. In view of the distribution of the Aboriginal population, there is strong argument for the inclusion of such courses in the core programmes of all colleges. Significant numbers of teachers will have Aborigines in their classrooms; all should, therefore, be helped to achieve competence in this area of their professional functioning.

As research related to Aboriginal education (still in its infancy) becomes extended and as new programmes are developed and evaluated, inservice education programmes (preferably cutting across state boundaries) will assume increased importance.

If I were forced to determine a top priority within Aboriginal education, I would undoubtedly assign this to teacher education. In saying this, I have it in mind that for changes in teacher education to be effective, changes in all the other areas discussed would need to be implemented concurrently.

(f) Professional support for teachers

At present many teachers involved in Aboriginal education suffer a professional isolation. They lack a medium for communication with their colleagues. Exciting new ventures develop and operate to the advantage of only a handful of children; propagation and extension of these successes require channels of communication.

Teachers involved in the challenging task of devising effective education for Aborigines must be supported by the material, technological and pro-

fessional resources of the system. If they are not, their effectiveness is limited and it is all too likely that, over time, their enthusiasm will wither. They need to feel that their efforts are valued.

(g) Research and evaluation

In the fifties there was little research activity in fields relevant to Aboriginal education; the sixties saw a comparative upsurge in this research activity. The seventies must see a heightening of this research activity if in this, as in any other field of activity, we are to root our programmes in reality and if we are to be able to guide future endeavours in the light of a clear understanding of our successes and failures. Ongoing evaluation of Aboriginal educational programmes is essential.

CONCLUSION

The major priority is acceptance and valuation of differences. This must be accompanied by understanding. Acceptance, valuation and understanding of Aboriginal people are, basically, all that are essential; these will guarantee the insightful application of the educational expertise which exists in this country to the challenge of creating an optimal educational environment for Aboriginal children.

SOCIAL CONSEQUENCES OF EDUCATIONAL CHANGE IN PAPUA & NEW GUINEA

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Introduction

Papua New Guinea enjoyed a satisfactory educational system long before the arrival of Europeans:

> Each village had its own education system. The subject matter was life and how to live it. It was a perfect system of education. The teachers were expert and the pass rate was high. There were very few drop outs. Our teachers could explain everything. There were no mysteries that they couldn't explain to their pupils. They knew the name for everything. They knew the name of every tree and plant. They could explain every natural phenonemon. They knew the myths and legends and taboos. It was a perfect system for a static society.[1]

Such a system, though informal, and with a different content to that of education systems in Western countries, had, as has been pointed out by President Nyerere of Tanzania, the same purpose: '. . . to prepare young people to live in and serve the society, and to transmit the knowledge, skills, and values and attitudes of the society.'[2] Nyerere warned that if education failed in any of these fields, social progress would be slowed, or there would be social unrest 'as people find that their education has prepared them for a future which is not open for them.'[3] This paper presents the view that the present Western-oriented system of education in Papua New Guinea does not adequately prepare many young people for life and work in this country, and that this situation is causing serious unrest and tension.

Educational Progress Measured Quantitatively

Prior to World War II, the schooling offered was almost entirely elementary, and was provided by the missions:

> Fewer than 500 pupils were in administration schools in New Guinea. There were no administration schools in Papua. At the same time approximately 90,000 pupils were in mission schools. There was virtually no secondary education in Papua or New Guinea.[4]

The Department of Education was established in 1946, when administrative control of education for the joint territories (i.e. the Australian Territory of Papua and the Trust Territory of New Guinea) was officially begun.

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[1]Ebia Olewale, M.H.A., "The Impact of National Institutions on Village Communities", Fifth Waigani Seminar, University of Papua New Guinea, 1971, (mimeo.), pp. 2-3.

[2]Julius K. Nyerere, *Education for Self Reliance*, (Dar es Salaam: Government Printer, 1967), p. 2.

[3]*Ibid.*, pp. 2-3.

[4]"Education in Papua-New Guinea", *Current Affairs Bulletin*, 43:6, February 10, 1969, p. 82.

Progress since 1946, if measured by the numbers of students and teachers involved in education in 1971, has been impressive.[5]

Institutions	Students	Teachers
Primary	218,800	6,807
Secondary	20,555	978
Technical	6,215	359
Teacher Education	2,085	208
	247,655	8,352

The network of tertiary institutions which has grown up in recent years is also impressive. It includes 11 teachers' colleges, an agricultural college, a forestry school, an Institute of Technology, and the University of Papua and New Guinea. The University, located in the Waigani Valley, seven miles from Port Moresby, commenced degree teaching in 1967 with 83 students. There are now more than 1,000 students, an academic staff of 120, and Faculties of Arts, Science, Law, Education and Medicine.

However, these figures do not tell the whole story. Only one child of school age in every two has access to a primary school in Papua New Guinea. In some districts, such as the Southern and Eastern Highlands, the figure is only one in four; in others, such as Manus and New Ireland, more than three-quarters attend primary school.[6] This disparity causes resentment on the part of the less privileged, and is a live political issue in the country.

Furthermore, the proportion of children who, having completed their primary schooling, are admitted to Form 1 of a high school, was only 37 per cent in 1970, a steady decline from 58 per cent in 1966.[7] The proportion who will survive their secondary years and go on to some form of tertiary education is tiny. The 'drop-outs' and 'push-outs' litter the paths of formal learning in Papua New Guinea. However, as Reiner has noted, no child fails to learn from school:

> Those who never get in learn that the good things in life are not for them. Those who drop out early learn that they do not deserve the good things of life. The later drop-outs learn that the system can be beaten, but not by them. All of them learn that the school is the path to secular salvation, and resolve that their children shall climb higher on the ladder than they did.[8]

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[5] *Recent Developments in Education*, (Port Moresby: Department of Education, 1971), p. 21.

[6] *Ibid.*

[7] V. McNamara, "High School Selection and the Breakdown of Village Society", *Papua New Guinea Education Gazette*, November 1971, p. 241.

[8] Everett Reimer, "An Essay on Alternatives in Education", *Interchange*, 2:1, 1971, p. 1.

Educational Policies During the Fifties and Sixties

The stated policy of the Minister of Territories (then Mr. Paul Hasluck) in 1955 was to work to obtain universal primary education in English as soon as possible.[9] In 1961, the Minister of Territories outlined plans to increase school enrolments from 150,000 to 350,000 in the next five years, and long-range plans to increase enrolments to 750,000 by 1975, by which time all children of school age would be within reach of schools.[10]

The United Nations Visiting Mission of 1962, under the chairmanship of Sir Hugh Foot, was critical of the Administration's plans for mass literacy, acknowledging that whilst it was commendable enough in principle, it was inadequate for the needs of Papua New Guinea at the time. The Mission pointed out that:

> . . . the existing system does not:
>
> (a) provide university education;
>
> (b) produce individuals capable of replacing Australians in other than unskilled or semi-skilled positions;
>
> (c) give a level of knowledge required to exercise responsibility in the fields of commerce or industry;
>
> (d) make provision for senior administrative and professional staff; or
>
> (e) adequately generate political confidence and leadership.[11]

It went on to say that 'a new approach was essential' and that the Administration should be planning now to provide 'an annual turn-out of university graduates of the order of at least a hundred'.[12]

The Mission made it clear that Australia's educational policy in Papua New Guinea should quickly enter a new phase:

> Since the end of the Second World War education policy in the Territory has been in what might be called the 'preparatory stage'. It is now high time to move confidently into the development stage. The base of the educational pyramid has been laid. The mission feels that the time has come to complete the structure of earlier effort, and to provide the apex of the pyramid by a new policy of selection for and encouragement of higher and university education.[13]

Thus Australia's educational policy in Papua New Guinea changed direction in the sixties, and became one of élitism. Secondary and higher education began to receive high priority in the country's educational development. The expansion of primary education became necessarily limited to a target of providing primary places in lagging areas for at least fifty per cent of eligible children, while attempting to maintain the percentages in areas

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[9]B. Essai, *Papua and New Guinea*, (Melbourne: Oxford University Press, 1961), p. 174.

[10]*United Nations Visiting Mission, 1962: Report on New Guinea*, (New York: United Nations Trusteeship Council, Twenty-Ninth Session), p. 23.

[11]*Ibid.*

[12]*Ibid.*, p. 24.

[13]*Ibid.*

which already had more than fifty per cent.[14] And of course, a rigorous policy of selection for the limited number of coveted secondary places was essential.

The School and the Break-down of Village Society

Secondary selection has had the most far-reaching social and educational consequences. Primary education is not seen as a phase of education in its own right, but merely as a pre-requisite for admission to high school. Those successful at the Standard Six examination who are not selected for high school tend to be regarded as failures by themselves, their peers and their families. Those who fail, and those who pass but are not admitted to high school, either remain in the village — where they frequently do little else but sit around, wondering why the world refuses to owe them a living, and causing trouble and concern to the elders of the village — or drift to the towns to compound the problems of unemployment, poverty, overcrowding, crime and misery existing there. In either case, the student's education has not fitted him for either the old life or the new.

A decade ago, a young person with a certificate to show that he had completed 4 to 6 years of primary education was assured of a job. Not so today. The number of unemployed primary school leavers is rising rapidly, as 10,000 seek work each year. It has been estimated that the numbers of Standard Six school leavers are increasing at 10-12 per cent per year, which is twice the rate at which employment opportunities are increasing in the economy at the lower level (i.e. semi-skilled or unskilled) manpower field. Standard Six leavers now find that their employment opportunities are almost exclusively confined to the lower level manpower field, and that even here they face competition from Form 1 and 2 leavers, as well as others with less education than themselves.[15] No wonder John Ryan has warned: '. . . the Australians have an educational tiger by the tail. Somehow they must channel the primary students back to the land, the only industry with the potential to absorb them.'[16]

The prize for those who succeed in being selected for high school is to live and work in or near towns. For this is where the high schools are. And they are generally boarding schools. Thus high school education removes the student from home, and his social behaviour:

> '. . . is controlled less and less by the family and the village, and more and more by the peer group at school and the imposed standards of the school. The student is independent of the structure of the village and he is freer than ever before to determine his own behaviour.'[17]

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[14]Geoffrey Smith, "Population Growth and Education Planning in Papua and New Guinea", Seminar on Population Growth and Economic Development, University of Papua and New Guinea, 1970, (mimeo.), p. 3.

[15]"Primary School Leavers in Papua New Guinea: Some Facts and Considerations (Section A)", Research Branch, Papua New Guinea Department of Education, 1971, (mimeo.), p. 2.

[16]John Ryan, *The Hot Land: Focus on New Guinea*, (Melbourne: Macmillan, 1971), p. 362.

[17]J. R. Prince, "Urbanisation and Education: Can the New Guinean Church Cope?" *Journal of the Papua and New Guinea Society*, 4:2, 1970, p. 93.

Dr. V. McNamara, First Assistant Director of the Department of Education, has recently warned educators that the process of secondary selection is turning the eyes of parents, teachers and children away from the real tasks of education in Papua and New Guinea. He has written in the strongest possible terms that: '. . . high school students are seen as the lucky ones because they have escaped from village life . . . (and) are being prepared for a new and wonderful life in the towns.'[18] Secondary selection, he maintains, frustrates the major task of the country (i.e. to solve the problems of village life) in two ways:

> Firstly, it encourages the gifted children not to devote their energies to solving the problems, but to escape from the problems. Then it says to the rest of the children, 'You have not succeeded in your task of try to escape from the problems—now go back and solve them!'[19]

Students tend to become alienated from their own people, and this causes concern to both parties. The older people view the situation with dismay:

> The village folk can see their children getting away from them. They can't impart the ideas of the village traditions and the dances and the ritual to their children. Their children are neglecting their obligations too. The parents can see attacks being made on such cherished institutions as bride price payment. The young ones are in the forefront of the attack.[20]

The students (especially University students) may be compared with a group of 'stateless persons' who 'try to fit in when they go back home but are not at ease any more.'[21] I have been told by my own students of this alienation, which seems to come as much from the attitudes of their own folk as from themselves. One student told me that he is forbidden to work in the garden when he returns to the village for his vacation. As an educated man, he is not expected to soil his hands. Another told me that his mother thought it inappropriate for him to eat the traditional food any more.

The fact that the school is largely Western-oriented in its values also has a profound effect upon village society. Traditionally, the latter stressed cooperation, and a communal approach to decision-making. The extended family system provided social service benefits for the unfortunate. There was limited mobility, few notions of status, and a conservative outlook. By contrast, the school seems to encourage and reward those who are individualistic, competitive, ambitious, and single-minded in their drive for personal advancement. It epitomises change, and generates mobility. Its very presence seems to cause the break-down of village society.

There is, then, danger that 'the rising tide of educational expectations' will turn into 'an ebb tide of educational and social disillusionment.'[22] In

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[18]McNamara, *op. cit.*, p. 244.

[19]*Ibid.*

[20]Olewale, *op. cit.*, p. 4.

[21]*Ibid.*, p. 5.

[22]John W. Hanson, "The School Leaver Looks for Work", in John W. Hanson, Cole S. Brembeck (eds.), *Education and the Development of Nations*, (New York: Holt, Rinehart and Winston, 1966), p. 269.

Africa, educators have warned that schooling and the expansion of schooling, may be creating as many problems as it is solving old ones '. . . the drive for schooling, once whetted, does not slacken; and the consequences of schooling may merely serve to feed the smoldering, and intermittently glowing fires of social discontent, disorder and violence.'[23] In Papua New Guinea, as in Africa, education for frustration is not apt to prove education for development.

Factors Impinging Upon Socio-Educational Planning

Before daring to suggest some policies, which if implemented, might improve the present situation, one should consider some of the factors which impinge upon socio-educational planning. Ten propositions are examined:

1. **Secondary selection is essential because of the high cost of secondary education** Costs are indeed high. However, can we assume that the present expenditure is yielding its maximum advantage?

2. **Education seems inevitably to promote dissatisfaction in the consumer** Education certainly enables one to contrast things as they are with things as they ought to be. But it should also fit the individual for his future life and work. If it leads only to discontent, frustration and idleness, the question may be asked: Is it relevant?

3. **The school cannot create employment opportunities** True; but the school can create an awareness of alternatives, and can help students to accept the circumstances of a changing environment and to learn to get the best from it. The school should not raise expectations which it cannot meet.

4. **Young people want to escape from village life** But do they? Would they stay if rural living were more attractive? Is there any real evidence that young people would not stay in rural communities if a better living could be made in agriculture than in the lower grades of employment in the 'modern' sectors of the economy?

5. **Urban drift is a feature of the Western world** We are paying a price for it, too, in the form of pollution, over-crowding, transport difficulties, crime and delinquency, and so on. Must Papua New Guinea replicate these problems?

6. **The alienation of the young and the old is universal and as old as mankind** This problem is aggravated by the unprecedented speed of change in Papua New Guinea, which is trying to rocket itself from the stone age to the 20th century in a generation or so. The young find it easier to adjust to change than the old. Surely it is possible to make special efforts to help older people adjust to the speed of change, so that they can have some common ground with the young?

7. **A gulf between the educated and the non-educated is inevitable** But is it? Education is larger than schooling. An educated man may learn

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[23] *Ibid.*

from a wise illiterate. It is important to ensure that there are contacts between the two, so that there are opportunities for the growth of mutual respect through understanding.

8. **If Papua New Guinea is to compete in the modern industrial world, then changed social values are inevitable** Can the school do nothing to hinder the steady march towards the 'rat race' of the Western industrial society?

9. **Previous attempts to orient the school to the village have failed** Dr. McNamara has said that all sorts of devices have been tried to make the work of the primary school more realistic, to persuade teachers to teach a relevant, village-centred syllabus. While these things have been useful enough, they have quite failed to turn the eyes of parents and teachers away from high school selection. Furthermore, vocational centres, established to teach students useful crafts, have been seen by students as a second-rate alternative to high school.[24]
But perhaps more radical measures are necessary?

10. **Indigenous people want a Western-type education for their children** We have created that want, by offering rich 'cargo' to those who succeed in the system. Incomprehensible and irrelevant it may be, but why change it if you have a chance of beating it? The educated élite have a vested interest in preserving the system which has been responsible for their privileges.

    There are indications, however, that some Papua New Guineans are not satisfied with the present system. After a visit to Africa in 1967, Mr Paulias Matane saw a need for change, in accordance with the realities of the position of Papua New Guinea, a country with 'a predominantly rural economy for many years to come, perhaps for ever'.[25] Improvements should be made in the rural areas, where most of the people live, and provision should be made in schools for the primary school leavers who will go back to rural life:

    > We must produce good farmers or rural workers — people who are happy to work on the land. These are the ones who will help this country to develop economically. This would also stop the young people who, having nothing to do because they are 'different' from their village folks drift to the towns where if they are lucky, they can find a job. These are the permanent 'applicants' of African countries. We should make village life more interesting and useful. Agriculture is not learned only from books. Good agriculture is practical and this is an aim we should pursue.[26]

In October, 1971, the Department of Education invited 33 Papua New Guineans, representing all sections of the community, to come together to discuss the aims and objectives of the primary curriculum. They were asked

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[24]McNamara, *op. cit.*, p. 240.

[25]Paulias Matane, "Education for What?" *Papua and New Guinea Journal of Education*, 5:3, February 1968, p. 28.

[26]*Ibid.*

to list the most important tasks for the primary schools. The following resolutions were included among the 25 passed:

Resolution 3
Prepare children for the changing society of Papua New Guinea.

Resolution 4
Teach children to respect the views of their parents and the village community.

Resolution 6
Give children practical knowledge so that they will be useful in any society.

Resolution 12
To teach children how to live a full and useful life; not to be lazy and wait for others to do things for them. This can be achieved through traditional artifact practice work in school as project work and the parents can foster them to work at home like agriculture or skill of art and craft.

Resolution 14
To teach children how to work towards better society; that this can be done through selecting good things from the old and adding to the new ones which are suitable for our society in Papua New Guinea.

Resolution 16
To teach the children how to reconstruct their cultural heritage through practising traditional dancing, folk songs, drama and craft and so forth.[27]

The resolutions, even if somewhat quaintly expressed, have important implications; they show the concern of indigenous people for an education which is relevant to the needs of Papua New Guinea society.

It is always easier to diagnose ills than to prescribe remedies. Nevertheless, remedies must be suggested for the educational ills of Papua New Guinea, for time will not permit mere diagnosis. For it is highly likely that the social consequences of the educational changes which we have introduced will become more manifest, indeed more explosive, with the arrival of independence. A paternalistic Australian Administration may be detested in some quarters, but it is a kind of cement which holds the structure together. The history of some new African states shows that the cracks in the facade become more obvious and less tolerable with independence.

Policies and Plans

What proposals to improve education can now be offered?

1. Place more stress on education in the broadest sense, rather than on formal schooling. Matane knew what this meant when he wrote:

   In New Guinea many people do not go to school. However, they build houses, know the best wood for building, mend or make fish traps and know how to make good gardens. They know when to plant, how to

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[27] "Primary Curriculum Seminar", *Papua New Guinea Education Gazette*, 6:1, February 1972, pp. 14-15.

plant and how to space crops without academic learning or sitting for examinations. They learn these things not only by listening to their elders but also by doing.[28]

If respect for the village traditions and crafts is to be maintained, then this knowledge must be imparted by the village elders. Their teaching abilities should be utilized; the aim should be to integrate the school and the village. This policy would help to dispel the mystery of education, exposing it for what it should be: preparation for life and work.

2. Closer relations should be sought with the local community, so that school-community objectives become identical. The involvement of parents, children and teachers in practical village projects would help break down divisions between the school and the community. McNamara has pointed out that he has seen this concept of 'fundamental education' working successfully in the Philippines.[29]

3. Primary education must be complete in itself, and not merely a preparation for the secondary school. It must prepare children for a rural life. The primary curriculum should be oriented towards the importance of agriculture in the life of the nation. This objective is more likely to be achieved by involving children in village agricultural projects than in formal instruction in agriculture.

4. Eliminate secondary selection by giving all primary leavers an opportunity for some secondary education. Some imaginative solutions would have to be found to the problem of the sheer number of children who would seek admission. For instance, the use of technological aids such as television, radio, banks of tapes, programmed learning texts, simple teaching machines, would be essential. Independent study techniques would be stressed. Students could be rostered to attend say three days of a six-day school week; the rest of their time being spent in normal village pursuits. The underlying philosophy would be to bury the notion of the school as a 'teaching centre' and to promote the concept of a 'learning centre'. There would be a notable absence of 'forced feeding' in such a situation, which would be all to the good. The curriculum, again, must prepare students for the life which the majority will lead in the rural areas, and not merely select the few for university and other tertiary training.

5. Vocational centres should develop more of an agricultural bias. Entry might be considered a prize for the adult villager who can take his newly learned skills back to the village and pass them on to others.

6. Increase the number of agricultural advisers by establishing a Faculty of Agriculture at the University. It seems odd that 1972 saw the first indigenous lawyers graduate from the University of Papua and New Guinea, although there is yet no Chair in Agriculture!

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[28]Matane, *op. cit.*, p. 27.
[29]McNamara, *op. cit.*, p. 245.

7. A national economic plan should be devised to create more job opportunities in rural areas, and also to provide more amenities, to make rural life more attractive. Some positive inducements, such as rapid promotion, might be offered to public servants with specialist qualifications who are prepared to live in, and make a contribution to, rural areas.

8. A vigorous adult education programme should be instituted, to acquaint older people with the nature of the changes occurring, to help them adjust to it and cushion its effect. The 'learning centres' could be employed for this purpose, at night. This would also help diminish the 'generation gap' by promoting better understanding.

9. The concept of compulsory community service for secondary and tertiary students should be seriously considered, as a way of breaking down the isolation of the educated élite from the rest of the people. Nyerere said:
. . . 'the children must learn from the beginning to the end of their school life that education does not set them apart, but is designed to help them be effective members of the community — for their own benefit as well as that of their country and their neighbours'.[30]
National goals need to be spelt out in specific terms, so that all citizens — no matter what formal education they have received — can see the importance of their role and the nature of the contributions they can make. Furthermore, the notion that schools, colleges and universities are not shelters for the privileged, but must contribute something to the national income is also worth examining, in a country which may face a reduced national income after independence. Perhaps it is not unreasonable to demand 'that all schools, but especially secondary schools and other forms of higher education, must contribute to their own upkeep; they must be economic communities as well as social and educational communities'.[31] It might not be unreasonable either, to expect even university students to sweep floors, cook meals, wait on tables, and give some time to a university farm or workshop.

The problems of education in Papua New Guinea, though vast, are not insurmountable. A basic problem is that the formal system of schooling, with its mysteries and rituals, its stress on individualism and competition, and promises of rich prizes for the successful, is even less appropriate for a country emerging overnight from the primitive than it is for the United States, Britain, or Australia. Perhaps, too, the consequences may be more severe, indeed tragic, in Papua New Guinea than in the West, where we have been conditioned to accept our educational system without much questioning. A country with high living standards may allow itself the luxury of a somewhat irrelevant education; in a developing country a lack of relevance may be perilous. In

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[30]Nyerere, *op. cit.*, p. 25.
[31]*Ibid.*, p. 31.

Papua New Guinea today the social stresses and strains which the educational changes have produced are plain for us to see. There are some who think that 'the ebb tide of educational and social disillusionment'[32] would be a monstrous legacy for Australia to bequeath to an independent Papua New Guinea. And time is fast running out . . .

[32]Hanson, *op. cit.*

PRIORITIES IN THE IMPLEMENTATION OF EDUCATIONAL CHANGE

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Introduction

There are, no doubt, experts in the field of the history of Australian Education who could tell us where we have been and where we are. They might even be able to explain how and why we have reached these positions. Such explanations are not, however, likely to be of value in determining where we should be now or, more importantly, where we should be heading. In this paper are presented one man's views of the nature of the problems facing Australian education. I must stress that the views are my own. They are not the official views of the Australian Science Education Project, no do they necessarily reflect the official views of that Project.

In this paper it is intended to offer an overview of the situation and then discuss, in some detail, the basic needs, as I see them, after which the means by which those needs may be satisfied will be discussed.

OVERVIEW OF THE SITUATION

Education, whether in the home, the church, the school, within the peer group or through the mass media, is an integral part of any social system. Social systems undergo continuous change and the Australian social system, in common with many throughout the world today, appears to be changing, at the moment, at an accelerating rate. So education in Australia must also change. The direction of the change must correspond with our society's changing aims and purposes for education. It is essential, for instance, that children be more specifically educated to cope with change.

Of the various educational agencies operating in our society, formal schooling offers the best hope for the implementation of change. But it must be remembered that the school systems of Australia — measured in terms of finance, bricks and mortar, people and skills — constitute a tremendous industry. The size of the industry is such that a very great effort is required to change its speed or direction. The resources needed to produce such an effort will be made available only when the need becomes so apparent that it is accepted as being imperative. The existence in the national educational scene of the Australian Science Education Project, the first-ever national curriculum development organization, funded jointly by the Commonwealth and the six States, is evidence of the beginning of acceptance of the need for change.

If the nature of formal schooling is to change at the rate required to match societal changes, it will be necessary to apply a steady, significant force in the required direction. A project such as ASEP, which is concerned only with science in the junior secondary school, can produce only sufficient materials to cater for something less than five per cent of the time children spend in primary and secondary schooling. A comparison of the annual

expenditure on ASEP with that on primary and secondary schooling suggests the analogy of the impact of a golf ball on a sand trap. Not only must sufficient resources be diverted to produce the required impetus, but the direction of the push must be defined. Decisions must be made to ensure the best use of the resources allocated to education. The provision of more resources for an extension of existing facilities is not necessarily the best solution of the problem. On the other hand, it would be quite wrong to provide extra resources to facilitate innovation for the sake of innovation. Any innovation must be based on a defined national philosophy of education. This philosophy should be expressed in a clear statement of a set of aims and purposes, should state the priority to be accorded to education within the national economy, and should list the priorities to be applied within education.

The classroom is the work-face of the industry. Within the classroom there is a system involving students, teachers, equipment, curriculum and techniques. These factors interact with each other. Change in any one of them necessitates modification of the total system if maximum efficiency of the system is to be obtained. Education, as a major industry, involves considerations of organization, administration and manning.

(a) First priority in the implementation of educational change must be accorded to co-ordinated, applied research designed to define our national philosophy, to determine the nature of the classroom system and to assess the present status of education as an industry. On-going research will be required to determine the changes that must be made to the present position to keep it aligned with changes in society.

(b) Research should be used as a basis for the development of proposals for change. Concurrently it will be necessary to develop ways of evaluating the effects of the implementation of these proposals.

(c) Finally, the proposals, if accepted, must be serviced. A belief that the teacher is, and will continue to be the most important factor influencing the quality of learning in the classroom must lead to the conclusion that great effort should be devoted to the initial education and the continuous re-education of the teacher.

THE BASIC NEEDS

Education has needs both in regard to quantity and quality. It is appreciated that as a matter of political expediency priority must be given to the satisfaction of the demand for quantity. Enough teachers must be provided to man enough classrooms to house the number of students who must, under legal duress, attend school. I accept the need to observe this priority provided that catering for quantity is recognised and a starting point only. The real need is for quality in education. Improvement in quality can only stem from research and development, and service to the industry.

(a) Research

It is not possible to stress too much the need for research in education. I commend to your attention the UNESCO Report entitled 'An Asian Model for Educational Development' from which I quote from page 94.

> 'The potential of educational research in providing guide lines for policy decisions has yet to be fully realised. The expenditure on research is on the whole so small at present that it is hardly a factor in educational costs. This is an area where investment will be richly rewarding. Only research can yield reliable guidance to the solution of such fundamental problems as curricular reconstruction, measurement of quality and standards, educational costs, teaching and learning processes, and the like.'

It must be emphasised here that the UNESCO statement can only be valid if referred to an established philosophy and set of aims and purposes of education.

The areas in which research into education is essential are numerous and varied. The amount of research completed is small. Much of what has been done has been in respect of theories of teaching and learning. Referring to research of this nature Herbert J. Walberg, of the Chicago College of Education, has reported that:

> 'Stephen's survey indicates that things commonly believed to promote learning make no difference at all, e.g. different teaching methods, TV versus traditional, team versus ordinary, large versus small classes, lectures versus discussion. Individualizing instruction has been advocated, but research findings are indefinite . . . Educational psychology offers no satisfactory method of designing learning experiences to attain given objectives.'

It is essential that we know what we are trying to do before we dissipate resources on investigations of how it might be done. I should, perhaps, explain that for many years I associated with those who are not in the educational 'know'. I had to accept, and eventually did so quite happily, that education was subservient to training and that education could only be permitted after its purposes had been defined and its cost justified. Priorities had to be established and observed. Fundamentally, there is a need, in the absence of any philosophy or set of aims and purposes of Australian education, to conduct research directed to the determination of these matters. Without such a determination any other research or any innovation is conducted in vacuo. As soon as these foundations have been set the universe of problems can be approached. There is not time to discuss more than a very few of the areas where research is vital if change, in the desired direction, is to be implemented. Discussion will be confined to some comments on certain of the factors operating in the classroom system, viz. the students, the teachers and the curriculum, and on education as an industry.

Of the many variables involved in education it is likely that the body of students, particularly those at secondary level, has undergone the most significant change. Under the combined influences of technological progress and the affluent society the total experiences of a present-day child are more numerous and more varied than those of a child of a similar age several decades ago. Social pressures have caused the vast majority of children to proceed to secondary schools, there to remain for increasingly longer periods. The students, knowing no life other than the affluent, relative though this be in many cases, are not dominated by the fears of their forbears. Their greater

sophistication, allied to their knowledge of modern forms of protest, lead them to question what is being done to them. Failure to recognise the changing nature and needs of the student body jeopardises the chances of success of any educational effort.

The teacher is a delegated representative of society. Whether he be an executive, an administrator, a co-ordinator or a class-room practitioner, the teacher is responsible for interpreting society's philosophy and implementing its educational aims and purposes. As these purposes change so his tasks change. As the student body changes so the teacher's techniques change. On any given day in moving from classes of one level of sophistication to those of another the role and style of the teacher change.

Flexibility is a key requirement of the teacher. Many teachers enter their profession for a life-long career. Of those who leave early, many do so because of their flexibility or of special qualities with appeal to other employers. It is probable that these qualities are the ones which would be most valuable in a teacher. Students, in search of self, look for acceptable models with whom they can identify. In their minds is an expectation that from among their teachers, society's delegates, there should be found a satisfying model. Flexibility may be an inherent quality, but there is no reason to believe that it cannot be cultivated. If it can be cultivated it should be. Moreover it would need to be sustained during a career starting at the age of about 22 years and extending to the age of 65 years. It is easy during forty years or more for any individual to become rigid in personality and outlook. It has been said that the most common disease of middle age is fear of change, a fear based on lack of confidence in one's ability to cope with change. Conditioning can eliminate fear, especially if conditioning is progressive. A sustained climate of meaningful change will remove fear of change. Of all the professions teaching is likely to be the most in-bred. While it may be true that few of the children of teachers become teachers, the in-breeding is systematic. Students complete their schooling, undertake teacher training and return to the schools as teachers. Many are likely to perpetuate the status quo.

The change from an authoritarian to a permissive society has been the cause of discomfort for many teachers. There are two recognisable levels. Where traditional props, such as syllabuses and examinations, have been removed, many teachers, unprepared for freedom, seek replacement props. At the level of teacher-student interaction, the removal of the teacher's inherent authority has left many teachers unsure of how to handle their new relationship with students. In the light of the changes in society, and in the student body, it appears that the special education of society's delegates should change. Teacher education must be for a purpose. The purpose must be clear if the education is to be effective. If the purpose changes then the education must change. Where practitioners educated for one purpose are later required to meet the requirements of another purpose those practitioners must be re-educated. In a life-long career in an industry with continuously changing purposes, there is a need for continuous re-education.

Involvement in curriculum development is vital to the training of any teacher. Curriculum development without the involvement of teachers would

be impracticable. Curriculum development without the preparation of teachers for the implementation of the curriculum would be futile. Curriculum development must be an eternal, ongoing process and reject the concept, explicit in the case of ASEP, of a terminating curriculum development project as being opposed to the need for steady change.

There is reason to believe that research into the organisation and administration of the education industry is vital, particularly in the cases of the large governmental systems. The recognisable existence of a 'death-chair' in at least one such system suggests that there is fault in the organisation, or in the selection or the training of incumbents. The apparent shortage of adequate delegates of society of a standard acceptable as models with which the younger generation are prepared to identify, suggests the need for research into the whole organisation of the industry. The teacher must be a fit and proper person to be charged with the responsibility of nurturing the young. The teacher is the only professional member of the community who is imposed on his client. In reality students cannot select their teachers in the way they can select their doctor, dentist or solicitor. It appears that there is a need for research of the kind demanded by the present Kerr Committee investigating conditions of service for members of the Defence Forces. The taking of job inventories, followed by job analysis and specification will ultimately be followed by an investigation of trade structure. When this kind of task is completed it will be possible to establish better procedures for selection prior to pre-service education as well as for the pre-service education itself, and for selection and training for promotion. Finally in research into the organisation and administration of education there is a need to consider ways and means of providing an adequate career for the effective class-room teacher whose desire is to remain in that role rather than be promoted out of the classroom into the administrator's office.

The required research relates to a complex system. It is evident that a change in any one of the interacting elements will necessitate modification of the others if optimal conditions are to be maintained. Continuous research will be required.

(b) Development

There are many locations within Australia in which expertise in educational matters is being developed. There is room for more such opportunities but those opportunities should be offered in such a way that Australian society, which must pay, should gain the greatest return for its expenditure. This would be most likely to happen if the expenditure were incurred in co-ordinated, applied research and development. Development should involve the synthesis of concepts and, subsequently, of proposals for changes within the industry, the synthesis being based on the results of research. Proposals should be accompanied, automatically, by evaluative procedures designed to test the worth of the proposals.

(c) Service

The present structure of the education industry involves the employment of teachers, in a variety of roles, and of a variety of other workers some of whom may be classed as specialists or, perhaps, as sub-professionals. The

laboratory technician may be so classed. A thorough investigation of the industry may reveal the need for other kinds of workers, different from any at present employed. These employees will be classed as sub-professionals. The kind of service to be given to various categories of employees would vary but, in general, would be designed to promote the growth of experience of employees through the dissemination of expertise.

(1) Service should be provided at the pre-service level to teachers-in-training and sub-professionals to be employed within the industry.

(2) Service should be provided at a continuing in-service level to practising sub-professionals, teachers and junior administrators.

(3) Service should be provided at an advanced level to Teachers' College lecturers, who would return to disseminate expertise in their normal work places, and to potential senior administrators and executives.

MEANS

Before proposing the means by which the envisaged levels of research, development and service might be provided, it is essential that the magnitude of the task be recognised. This recognition is required as a basis for assessing the subsequent proposals involving the establishment of a National Education Centre and of a number of Area Resource Centres located around the Commonwealth.

Magnitude of the Task

This paper has stated that there is a need for continuous re-education of teachers. The number of teachers involved is of the order of 120,000. If teachers are to be given two weeks re-education each second year, and this seems to be minimal, there will be, on average, at least 2,400 teachers undergoing re-education each day. The organisation and conduct of this re-education would be beyond the capacity of existing resources. The rate at which society, and consequently its educational needs, is changing appears to be accelerating. The workload in research and development necessary to establish and support teacher re-education must increase. The total task is one of great magnitude.

A National Education Centre

As a national project, the Centre should be located in Canberra. ASEP, a national project, has already been described as Melbourne-based. The tasks of the Centre should include self-administration, research, development and service, by way of publications and of seminars and substantial courses for teachers' college lecturers and potential senior administrators and executives. The courses for the latter group might well be a prelude to attendance at the Australian Administrative Staff College. The Centre should also establish and maintain close liaison with the proposed Area Resource Centres.

To serve the purpose of dissemination of expertise and of cross-fertilisation, a significant proportion of professional staffing should be by way of secondments from school systems. It is envisaged that of the staff of about 100, about sixty would be drawn from the education industry. Of these some

thirty would be secondees, ten of whom would be initially appointed for two years, ten for three years and ten for four years. This would provide for a change thereafter of ten persons each year, each person to serve for three years. On return to their parent organisations, the secondees might serve in Area Resource Centres or Teachers' Colleges.

The capital works required to house the activity would absorb about $1,000,000. Running costs would be of the order of $1,000,000 p.a. with increments of 5-7 per cent to cover inflation and growth.

Area Resource Centres

NSW is divided into eleven educational areas. It seems appropriate that each area should have its own Resource Centre. NSW has about one third of the total Australian school population. It is reasonable to say that a total of thirty three Area Resource Centres would be needed to service the States. An additional Centre would be required to service the ACT. The ACT Area Resource Centre may well be housed with the National Education Centre. The suggested allocation of Area Resource Centres would be

ACT	1;	QLD	4;
NSW	11;	WA	4;
VIC	8;	TAS	2;
SA	4;		

Areas Resource Centres should be under the functional control of the appropriate Department of Education, but should be allowed close liaison with the National Education Centre. Staffing should be provided largely by Departments of Education, but should include proportionate representation of non-government school systems.

The tasks of the ARC's should include self-administration, development based on National Education Centre research findings and in accordance with a nationally co-ordinated plan, and service by way of publications and of seminars and courses for practising sub-professionals, teachers and potential junior administrators. It is considered that each ARC would need to have about the same work-force as ASEP, about fifty people. Capital works to house each ARC would cost about $0.5m, and running costs would be about $0.5m p.a. for each of the thirty four centres. It would be essential to provide for increments of 5-7 per cent p.a. in running costs to allow for inflation and natural growth. If all ARC's were established simultaneously the capital works outlay would be about $17m, and the annual running costs about $17m with 5-7 per cent p.a. increments. However it would not be feasible to develop all at once.

Proposed Time-table

A feasible time-table for the development of a National Education Centre and thirty four Area Resource Centres might be as follows:

1972-3 Appointment of nucleus of NEC staff to be housed with the Commonwealth Department of Education and Science. Planning and design of NEC.

1974-5 Building of NEC. Completion of staff. Planning and design of ARC's.

1976-7 Building of 3 ARC's in NSW, 2 in VIC and 1 each in QLD, SA, WA and TAS.

1978-9 Building of 3 ARC's in NSW, 2 in VIC and 1 each in ACT, QLD, SA and WA.

1980-1 Building of 3 ARC's in NSW, 2 in VIC and 1 each in QLD, SA, WA and TAS.

1982-3 Building of 2 ARC's in NSW, 2 in VIC and 1 each in QLD, SA, and WA.

Financing the Proposals

The matter of financing the proposals can be dealt with very briefly. A national project should be established to define a national philosophy of education, a coherent set of aims and purposes, the priority being accorded to education within the national economy, the establishment of a set of priorities within education. From a national viewpoint, there is a possibility of improved accountability in respect of the massive public funds used in education.

This leads to the conclusion that the whole of the proposal should be funded by the Commonwealth. But this funding must not interfere with the autonomy of the organizations.

THE ORDER OF PRIORITY

It appears that the order of priority which must be observed if educational change is to be implemented effectively is as follows:

1. Establish a National Education Centre, and subsequently, a series of Area Resource Centres.
2. Investigate the fundamental problems of education in Australia.
3. Develop proposals and accompanying evaluative devices, for change.
4. Provide service as will be required to implement the change.

ASSESSMENT OF PRIORITIES

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There is no shortage of declarations by individuals or by various special interest groups concerning what should be our priorities in education today. Many such have been aired in the course of this conference and all of us have our hobby-horses, even though some of us may not ride them as hard as others.

My hobby-horse today will not be what I think the priorities should be, except to say that I consider determination of our priorities is itself a major priority. Further it is my view that in Australia we have not for this purpose sufficiently developed either the necessary data base or the use of effective procedures for the rational determination of priorities.

I propose to concentrate on the process of assessment of priorities, commenting firstly on why we should establish priorities, secondly on some primary considerations in carrying out this task, and thirdly on some of the necessary conditions not only for determining priorities but also for making them effective.

I shall then report on the findings on the views of some twenty-two Western Australian educationists. These views were determined by the application of what is known as the Delphi Technique which, as far as I am aware, has not previously been used in this country. The findings will be discussed and related to other current comment on predominant needs of education in Australia today. However another major purpose will be to demonstrate one method which could have considerable use in the assessment of priorities.

In reporting this study I wish to express my deep appreciation to Mr. Alan Lonsdale, head of the Educational Development Unit of the Western Australian Institute of Technology and a member of this College. He enthusiastically carried out the major part of the enquiry at considerable personal cost of time and effort. My thanks also go to other members of the Institute who assisted him from time to time, as well as to the co-operative victims of the exercise who gave willingly of their time under the pressure of many other demands.

Why determine priorities? I suggest there are two major reasons. The first of these is that our resources will not stretch to all the things we would each like to achieve. If we think of our individual and collective ambitions in preschool, primary, secondary, technical, tertiary and continuing education, in better teacher preparation, higher salaries, shorter hours, reduced teaching loads, lower pupil/teacher ratios, and improved facilities, this should not surprise us. Nevertheless some may ask whether there is any reason why in an affluent society financial resources for education should be scarce.

Karmel in his Buntine Oration to this College in 1962[1] said he believed that 'in Australia we can and should spend very much more on education than we are doing' and 'on this there are no restraints other than those we ourselves impose'. However Borrie in his paper to this conference has drawn attention to the substantial increases in the real costs of education which are taking place. Treasury officials assure us that in the overall current climate of public opinion and demand for a variety of services in health, transport, law and order, defence and in many other fields it is impossible to meet in full the rapidly mounting claims for education. Nevertheless much has been done.

Speaking at a recent residential seminar of the W.A. Chapter of the College on 'Financing Education in Australia', Mr. L. E. McCarrey, Deputy Under Treasurer of the State of Western Australia, presented data showing that from 1949/50 to 1969/70 and over all States, education had increased its share of budget expenditure from one-fifth to almost one-third. The average annual rate of increase in the expenditure of the States on education over the same period had been a very substantial 13.4 per cent which is considerably beyond the growth of gross national product. In Western Australia educational expenditure since 1939 has consistently remained at about half of the total social services expenditure which now takes 60 per cent of available State revenues as against 25 per cent before the Second World War.

Substantial increases for education can only therefore be made by proportionately greater cuts in other services. In these circumstances it does not appear that a greater growth rate of educational expenditure than in the past is likely to be achieved, and this we know has not been providing all we have been asking.

Looked at from another point of view it is clear that resources for education will always be scarce, thus requiring choices to be made.

For the words of the old song are only too true, 'The more you have, the more you want they say'. As we reach higher levels of achievement our horizons expand. The more we are able to do the more we wish to be able to do. In short it is in our nature, and fortunately so, that our ambitions will always run beyond our resources, making these always scarce.

In these circumstances priorities will be determined. If they are not determined explicitly they will be determined implicitly. If they are not determined systematically they will be determined ad hoc, often in response to expediency and political pressures. I suggest that to date we have in Australia had too much of the implicit and ad hoc and not enough of the explicit and systematic.

This leads me to the second major reason for determing priorities, namely that we should take hold of the future rather than have it take hold of us. If we are going to have a say on what our future will be rather than have it forced upon us by the march of events, then we must more explicitly establish

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[1]Karmel, P. H., "Some Economic Aspects of Education", reprinted in *Education for Australians*, R. W. T. Cowan (ed.), Cheshire, Melbourne 1964, p. 48.

our goals and the path of progress towards them, for it has been rightly said if you do not know where you are going, any road will get you there.

Setting priorities is necessary to determine where we wish to go, how much progress we are making in getting there, and whether we are using our available resources to the best advantage in so doing. All of these I imagine we would consider as desirable.

Let me now turn to some considerations in setting priorities. Firstly it would seem that before establishing our priorities in education we need to establish the priority for education, since on the latter decision will depend what we will have to distribute between our internal priorities. In this respect it seems to me to be vitally important that we be realistic with regard to what education can achieve at least in our present state of knowledge of the art. There is a tendency today to see education as the panacea for all ills and the answer to all questions in our society. A heavier burden than it can bear may often be placed upon it.

For example I suggest we often try through education to overcome burdens of social inequality which would be better tackled more directly through other elements of social policy. On the whole the evidence is that despite all the attempts to provide educational opportunities to the disadvantaged, and the extent to which education has been a source of social mobility, the further students go in education the more previously existing social inequalities are either sustained or increased. Higher education has proved to be a significant vehicle for transfer of wealth from the poor to the rich. It is possible that we are often trying to solve through the educational system, disadvantages which could be more effectively tackled through the home. Professor Husen speaking at the last Annual Conference of the Australian Association for Research in Education pointed out that education cannot be a substitute for social and economic reform which in Sweden had proved necessary before educational reform could be effective.

Secondly to determine priorities in education in any systematic fashion we need to use and further develop the knowledge we have in several directions. One such direction is concerning our society within the context of which our education must operate. The previous major papers have set some relevant aspects of this before us, in terms of both the existing situation and the apparent trends.

But even more we need better information concerning the educational process and measurement of its outcomes. For too long we have assumed that so long as we put more resources in, we are doing better. We have been governed by an input rather than an output psychology. This runs not only to financial resources but to student resources. If students fail in tertiary education it is far too often considered to be because they were not selected well enough. Professional bodies in considering recognition of a course are often more concerned with the entry level than with the final standards achieved.

We have to ask ourselves much more how efficiently in achieving our objectives we use the resources we have. How do we determine priorities if

we do not know what benefits can be expected to flow from alternative uses of our resources? What outputs are to be expected from various inputs? We need to subject many more aspects of our educational effort to objective and critical examination. The general assumption that education is good so let's have more of it will not do. I well remember my Professor of Education at the University of Western Australia who whenever anyone said something in education was good, would retort, 'Good to whom for what?' This is a question we need to ask more frequently.

Productivity is not a popular word with educationists, but a growing disenchantment with meeting the rapidly rising educational bill, a disenchantment which is becoming widely evident around the world today, is going to demand that we demonstrate much more clearly what the community is getting for its money. Only then can we expect that support for education will be maintained and extended.

Any increase in the rationality of setting priorities must call for more systematic evaluation of the outcome of educational effort. Techniques for this purpose such as cost benefit and cost efficiency analysis are being developed though as yet they are relatively embryonic. Nevertheless Verco[1] as a result of his participation in the 1968 International Conference on Education Planning in Paris placed second among his conclusions drawn from the Conference, the need to direct research towards the techniques by which our educational outputs are measured, and third the need to examine the efficiency of our utilisation of present resources and to explore ways and means of more economical uses of such resources.

Nor would I wish to confine this consideration of resources to purely financial issues. We are continually using an increasing proportion of the lifetime of our students in education. Are they getting value for the expenditure of a commodity they can never replace? One must for instance read with concern the evidence of rising psychiatric illness in our institutions of higher learning and indeed in the earlier levels of education. 'The Sunday Australian' of April 30th this year reporting a seminar on mental health in schools, states that a survey by the Education Department in New South Wales shows that many students who go on to university will end in gaols, mental hospitals or under private psychiatric care. The deputy chief of the Department's division of guidance and adjustment said that children were under tremendous pressures, a number of which were identified as being within or related to the schools, whilst another speaker identified the syndrome of failure as one of the severe problems facing children today. Are we making the best use of the human resources we demand from our students?

And what about our use of the society's resources of manpower in the teaching profession? Wood in a paper prepared for the UNESCO Seminar on Educational Planning held in Melbourne in 1968, states that[2] —

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[1]Coughlan, H. K., and Verco, D. J., "International Conference on Educational Planning — Report of Australian Delegation", quoted in Bassett, G. W., *Planning in Australian Education*, Australian Council for Educational Research, Melbourne 1970, p. 92.

[2]Wood, W., "Educational Manpower in Australian Schools", quoted in Bassett, G. W., *op. cit.*, p. 126.

'Approximately half of the students presenting for the final year secondary school examinations reach the necessary academic standard for entry to teaching. This means that up to 40 per cent of those reaching this standard will be required for teaching.'

Considering the other professional needs of our society, is this a reasonable manpower allocation in relation to the benefits obtained from education? If we think it is can we sufficiently substantiate our claim?

Whatever we are able to achieve in the more effective assessment of educational outcomes and thus back our considerations with systematic information, determination of our priorities in education must ultimately depend on value judgments and on community acceptance and support. This leads me to the necessary conditions for the effective determination of priorities. This can only occur if there is reasonable consensus among the various parties concerned. Just as priorities of the public can to quite a degree be frustrated by educators, priorities determined by educationists which do not have adequate support from politicians and public are likely to suffer in resource allocation.

The fact is of course that different groups do legitimately have different priorities based on their respective perceptions and interests in relation to education. Various studies have shown that parents have different expectations of education to those of teachers, teachers often have different views from administrators, and pupils may differ from them all, and often do if we are to judge from the extent of student protest. In determining priorities for the system we need firstly to know what the priorities of the various groups are, secondly to provide adequate opportunity for the mutual influencing of viewpoints, and thirdly to try to reach a broadly acceptable consensus. Fortunately there are increasing examples of this more particularly overseas than in Australia. Here too often the tendency has been for reports predominantly departmental or otherwise in-group in nature, to be made to governments and released when government has made its decisions.

One great strength of the many excellent educational reports for which Great Britain is noted, is that they have generally been released for extensive public debate before government has made its decisions. In Canada at present there are two major educational planning and priority setting projects being undertaken in which the involvement of the public at all stages of the process is a vital element in the proceedings. One is a study of post-secondary education in Ontario in which a newsprint edition of a preliminary report was published. This was followed by submissions and public hearings throughout the province. A draft report is now being widely circulated and written comments are invited. These will become the subject of a series of public meetings.

In Alberta an exercise to set the pattern for the educational policy of the province for the last third of the century has been in progress for two years now and the Commission on Educational Planning will shortly publish its report. There has been a wide range of community participation throughout the course of the enquiry and a copy of the findings in appropriate form will be delivered to every household in the province apart from the wide use

of the mass media. Both of these studies have been backed by substantial research teams which have provided the factual material and documentation. Similar efforts are needed in this country if we are to have priorities adequately based on systematic information and representing the views of other than sectional interests.

One technique which can contribute towards more systematic consideration of educational practices and policies and which has now been used in a number of exercises in the United States is the Delphi Technique. This is a method of achieving convergence of viewpoints by repeated sampling of opinions without face-to-face meetings. The avoidance of face-to-face discussion is purposeful. Face-to-face communication creates serious problems in attempting to achieve convergence of opinion, as several previous studies have revealed. Among these problems are the following —

* Dominant individuals tend to control the discussion and have greater influence on group opinion than their knowledge necessarily warrants.
* Too much discussion time often is devoted to irrelevant or biased views of individuals or of the group as a whole.
* Individual judgment can be distorted by group pressure to conform, lessening the reliability and usefulness of the group's response.

The Delphi Technique consists of having each respondent complete a series of questionnaires interspersed with controlled feedback on the responses of the other participants. In addition to the advantages vis-a-vis face-to-face meetings, this method provides anonymity to the participants, thus minimising the influence of personal and political interests on their decisions. It also achieves considerable economy of participants' time in relation to their contribution. As originally developed, the Delphi Technique consists of four steps —

* Finally, each participant receives the list with an updated summary
* Second, each participant is asked to evaluate all of his opinions in terms of a given criterion.
* Third, each participant receives the list and a summary of the responses, and if his view differs from the most frequent response, he is asked either to revise his opinion or to indicate his reason for not doing so.
* Finally, each participant receives the list with an updated summary including minority opinions, and is asked to repeat or revise his own opinion.

A prime value of the Delphi Technique is that it preserves the virtue of independent thought but simultaneously permits the participant to tap the knowledge of others. In other works, the technique assures that opinions arrived at independently will nevertheless be informed opinions.

In the study reported in this paper, 27 educationists out of 29 invited agreed to participate. There was some progressive dropout due to a variety of

circumstances, and 22 completed the final round. These came from both the government and private sectors, from administration and from schools, from primary, secondary and tertiary education. No claim can be made to any scientific sampling. The aim was to select a varied group of respondents who were considered likely to be interested in participation and to have demonstrated an interest in the broad needs of education through some leadership in thinking in their respective areas.

In response to a first round request to consider Australian education in its broad context at all levels and in all forms and indicate what in the respondent's view were some six to 12 priority needs, 214 statements were returned. Most returned from six to 10 proposals.

It was interesting to note what might be expected, namely that the views expressed often clearly reflected the area of immediate educational involvement of the respondent. This emphasizes the point previously made of the variety of priorities likely to be held by a wider and more heterogeneous population and the extent to which these depend on individual experience and values.

From the 214 initial statements, 24 more general propositions were derived. These covered 12 different areas such as tertiary education, teacher training, quality of learning, and national enquiries and commissions. They incorporated ideas appearing to have more than individual support and were considered to cover the basic ideas expressed in the various responses. Opportunity provided in the second round for modification if the statements did not sufficiently cover the original concerns of the respondent resulted in only two comments.

In the second round the request was —

* firstly to rank each item on a five point scale running from very high priority to not important at all, confining those considered to have very high priority to five items only,
* secondly to select the single need considered of highest priority and to state in three to four lines why this was selected,
* thirdly to rank the remaining items given very high priority and indicate why they were given this rating, and
* fourthly to select the single need considered the least important and give reason for this.

The following is the list of the 24 items in the order in which they emerged from the third round. I shall proceed to look at the relative rankings of the various items. However all must be considered important if any review of the priorities in Australian education is to be made. The fact that each appears means that it has emerged from an expression of views by a group of senior educationists and the restricted dispersion of the average ratings from 4.5 to 2.9 on the five point scale indicates that each proposition has received reasonable support in the succeeding processes.

RANK ORDER FOR STATEMENTS AFTER ROUND III

Ranking	Item	Average Rating
1	*Improving the quality of teaching and learning*, through such measures as increased research, introduction of better teaching methods, the increased provision and more effective use of learning resources, etc.	4.5
2	Improvement in *the quality of teachers*, through expanded, more meaningful and appropriate pre-service and in-service training programmes.	4.3
3	Determination of the *national goals of education* at all levels, and of the relative priorities of national educational needs.	4.2
4	The placing of a greater emphasis on *the development of the person*, through a recognition that it is children we teach, not subjects. (This includes, for example, greater individualisation in teaching, improved remedial and pastoral services, the integrated system of creativity, etc.)	4.1
5	The development of a *continuous, integrated and coherent system of primary, secondary and tertiary education* which facilitates transition between levels, and allows for the maximal development of each child. (This includes, for example, attention to the educational dislocation between primary and secondary levels, the removal of the influence of tertiary institutions on the secondary curriculum.)	4.0
6	*The determination of formulae for the equitable and economical* (for example, through cost/benefit analysis) *allocation of finance* and resources to ALL aspects and levels of Australian education, and the establishment of machinery to facilitate this.	3.9
7.5	*The professionalism of teachers*—the improvement of the *status and morale*, and therefore effectiveness of teachers, through mechanisms which improve conditions of service, ensure professional competence, use teacher talent most economically, provide greater teacher satisfaction, etc.	3.8
7.5	Establishment of an *Australian Education Commission*, responsible for the development of an integrated and co-ordinated national system of education, and for the financing of Australian education at all levels.	3.8
9.5	Provision of a *much higher percentage of the G.N.P.* for education across the whole community.	3.7
9.5	Provision of considerably increased *resources for research and development* in education.	3.7

Ranking	Item	Average Rating
11.5	*Providing for equality of opportunity for ALL*, at all levels of education (disadvantaged, Aborigines, migrants, country children, etc.)	3.6
11.5	*The clarification of curriculum objectives* at all levels, and evaluation of the achievement of these.	3.6
13.5	*Improved administration and decision-making* in educational systems and institutions through, for example, the decentralisation of state systems, effective training programmes for administrators, more active involvement of teachers in decision-making and planning.	3.5
13.5	A concentration on *the development of values and attitudes*, and the ability to make moral and ethical judgments.	3.5
15	*Expanded provisions for vocational education*, through such measures as an extension of the comprehensive principle in secondary schools, increased resources for post-secondary vocational programmes, increased technician training, etc.	3.3
16.5	Establishment of *State Education Commissions*, responsible for the development of integrated and co-ordinated state systems, and for the state financing of education at primary and secondary levels.	3.2
16.5	An *improvement in the 'productivity' of tertiary education* through such measures as assessments of the degree to which objectives are achieved, improvement in teaching and learning, reduction of wastage, etc.	3.2
19	Improving the *relationship between educational institutions and society* by providing for greater participation of individuals and groups in society in planning and decision-making.	3.1
19	The provision of *pre-school education* for all children.	3.1
19	The provision of *independence and full tertiary status to teachers' colleges*, and their integration into the tertiary education system.	3.1
21.5	The provision of a *comprehensive system of tertiary education* which provides appropriate courses for all who wish to undertake such study, regardless of academic ability, previous achievement or financial means.	3.0
21.5	The need to provide within the framework of technical and tertiary fields of education, greater opportunities for *vocational re-education and re-orientation*, and for the	3.0

Ranking	Item	Average Rating
	maintenance of vocational skill and knowledge standards consistent with professional, commercial and industrial developments.	
23.5	To improve the impact of *education as an instrument of social change*, through a clarification of current social, cultural, moral and ethical issues, and a determination of the responsibilities and roles of the various sectors of education in their resolution.	2.9
23.5	Investigation of the desirability and possibility of *incorporating resources and facilities outside the formal education system* into an integrated educational programme, through such measures as the establishment of educational centres at places of work or community centres.	2.9

Though the ranking widened a little as the steps proceeded, thus indicating increasing convergence of viewpoints, the limited span indicates that the ranking can only be justifiably interpreted broadly and might be expected to vary to some extent even with a similar group let alone a more heterogeneous one.

Now let us look at the relative ranking. Concern with the quality of the teaching/learning process and its improvement is ranked at the top of the list. This concern with the quality of the educational process is reflected in many current writings on education. There is growing comment on the emphasis on quantity which has tended to characterise statements on educational progress in recent years. The comment made by Tretheway writing in a recent volume on Fundamental Issues in Australian Education is typical of many which could be quoted. He says[1]—

> 'Since 1945 discussion of problems has tended to be in quantitative terms — numbers of buildings, numbers of teachers, amounts of money to cope with increased numbers of children — and questions concerning the quality and direction of education and implication for individuals and society have been secondary.'

Apart from the question of quality it is interesting to see the unanimity with which emphasis is placed on what must surely be the heart of the education, namely the teaching/learning process. A summary of the arguments put by respondents in support of this priority makes this clear —

> 'This is the "essence" of the whole educational enterprise and deserves primary focus. Experimentation and research, the constant striving to improve and raise standards — these are the signs of health and vigour in a system. If these are lacking the system will be a poor one, irrespective of what is done for it in other directions.'

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[1]Tretheway, A. R., "Education and Australian Society", in MacLaine, A. G., and Selby Smith, R. (eds.), *Fundamental Issues in Australian Education*, Ian Novak, Sydney 1971, p. 66.

This focusing back on the central task of education is supported by the ranking in fourth position of greater emphasis on the development of the person. A summary of the relevant arguments given by respondents is as follows.

> 'This is the whole meaning of education. Full personal development is needed for the complete effectiveness of our total education pattern. External exams, large schools, strong centralisation of administration, etc. have tended to take the emphasis away from the child as an individual. Although this has long been acknowledged, mainly only lip service has been paid to it.'

Correlates to both the issues so far identified are of course to be found more broadly in our society. These are on the one hand growing disenchantment with the growth syndrome of recent years together with a greater preoccupation with the quality of life, and on the other hand increasing concern with the submergence of the individual in a mass society. Borie has pointed out for us that demographic trends fortunately present us with an excellent opportunity to give more attention to quality in the latter 70's before the next real wave of expansion hits the schools in the 1980's. Let us hope that this priority will be adopted and firmly pursued.

The next priority to what might be epitomised as concern with the student, his development and the means by which this is fostered, is concern with the primary instrument in this first priority, namely the teacher. Improvement of the quality of teachers is placed second in the overall ratings, supported by improvement of their motivation and effective use which is rated equal seventh. Summaries of arguments put by respondents for these two propositions respectively were as follows.

For the first—

> 'The quality of education hinges around the quality of the teachers. All other needs will be attended to, either directly or indirectly, if teachers are of adequate quality.'

and for the second—

> 'People are far more valuable assets than money or aids. More will be done for education by upgrading the professionalism of teachers than by any other single reform.'

Current concern with teachers is of course reflected in other ways by the recent enquiry of the Senate sub-committee into the role of the Commonwealth in teacher education, and discussions on the organisation and structure of this field which are proceeding in several states. As so often occurs these considerations are primarily structural and quantitative rather than fundamental in policy although of course they do have policy implications.

In third place in the ranking is the determination of national goals of education at all levels and of the relative priorities of national educational needs. In this I find support for the statement which I made early in this paper that one of the major priorities in Australian education is to determine our priorities. The placement of this item would seem to express a need for a clearer expression of where we want to go, a feeling that there is not enough

clear direction to our educational efforts. The summary of arguments produced by respondents on this item said—

> 'There are no clearly defined national educational goals at present. When these are established, major policy and administrative decisions affecting all facets of Australian education can be taken, and indeed should flow on naturally. There is certainly no point in adopting various schemes before goals are clearly established. The achievement of many other very high and high priority aims are contingent upon this one.'

It would not seem unreasonable to relate the comment concerning adoption of various schemes before goals are clearly established to many other current criticisms of what is seen as the piecemeal approach of Commonwealth action in education in recent years. The necessary emphasis on determination of goals was one of the major themes of the Seminar on Planning in Australian Education held in 1968. This was expressed by Radford[1] in the following terms in his summing up of that occasion.

> 'The first priority in planning must be clarity about goals and objectives. Their formulation should be the outcome of the involvement of the whole society.'

There are however two other elements of this highly ranked item which would appear to be of particular interest as representing what I would judge to be significant changes of front in recent years. These are contained in the words 'national' and 'at all levels'. In his address to the 1970 Conference of this College,[2] Professor Connell discussed what he called the piecemeal tradition of Australian education in which he refered to the tendency for preschool, primary, secondary and tertiary levels of education to have grown up to a large extent independently of each other. Though he did not refer to it, I suspect he might also have seen the relatively independent and unrelated development of the various state systems as part of this tradition also. Bassett reporting on the UNESCO Seminar on Planning, says,[3]

> 'the idea of national educational objectives may sound novel'

and he proceeds to document, with what I find as substantial arguments, the case for such action.

I would certainly judge the degree of emphasis on co-ordination at a national level and between the various elements of education, an emphasis now found in this study, as a somewhat recent development which should be of great interest to this College as a national body of educators drawing its membership from all sectors of education.

Priority for consideration of the system as a whole is further emphasised by the ranking in fifth place of the development of a continuous, integrated

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[1]Radford, W. C., "Australian Seminar on Educational Planning", *Education News*, Vol. 11, No. 12, December 1968, p. 6.

[2]Connell, W. F., "Myths and Traditions in Australian Education", *The Australian Journal of Education*, Vol. 14, No. 3, October 1970, pp. 253-254.

[3]Bassett, G. W., *op. cit.*, pp. 178-181.

and coherent system of primary, secondary and tertiary education, in sixth place of the item relating to the equitable and economical allocation of finance and resources to all aspects and levels of Australian education, and in equal seventh place the establishment of an Australian Education Commission responsible for the development of an integrated and co-ordinated national system of education and its financing at all levels. Interestingly in contrast the establishment of State Educational Commissions was placed relatively low in the scheme of things.

Arguments for the National Commission and the equitable allocation of finance both echoed the desire to see decisions based on educational rather than political grounds. The arguments for the continuous, integrated and coherent system of education also incorporated the view that —

> 'Greater integration of the whole system of education would promote maximum development of each child',

thus supporting the earlier priorities.

It is interesting to note that concern with the students, the teachers, the goals and the co-ordination of the system all took precedence over firstly the direct issue of finance in terms of a much higher percentage of the gross national product, and secondly the equivalently ranked provision of increased resources for research and development. The arguments relating to these items however seemed to share a somewhat common basis in terms of seeing each as a means to an end rather than an objective in its own right. Is there here too a recognition that the now somewhat overworked cry of more money for education is not enough?

Two items rated about the middle of the group and which some might have expected to appear higher, were those related to the development of values and attitudes and to providing equality of opportunity. It is not possible to say how far their placement was due to a feeling that if the broader objectives of concern for the development of the student as a person were achieved, these other objectives would be incorporated as particular elements within the application of the wider principles.

On the equality issue I have raised the question as to whether some seek to place too heavy a burden on education to solve the problem. Nevertheless there is no doubt that as Anderson has discussed in his paper, education is a considerable dispenser of privilege, often much more than educationists realise. We should do our utmost to see that in so doing it does not simply consolidate privilege. Unfortunately its very capacity in this direction will make this situation difficult to change. The more articulate and often more politically powerful members in the higher socio-economic groups in the community will obviously see it as their parental duty to do all they can to keep their children in front in the race. This factor will obviously tend to compete with the damp down action from the growing social consciousness concerning inequalities. It is worth recording the summary of arguments against this priority which reads as follows —

> 'In terms of the total education of an individual this is an impossibility and is meaningless. Increasing opportunities in one area often produce inequalities elsewhere.'

Generally those items ranked in the lower half of the 24 statements related to particular aspects of education such as pre-school, vocational or tertiary education rather than the whole, or alternatively they related to relationships of education with the society. This is not to say these issues were considered unimportant by the group. As I have said previously, the fact that they were in the list and the measure of support they obtained denies this.

There seems little doubt that tertiary and technical or further education will be priority issues in the next decade. Borrie's paper makes it clear that on basis of cost and comparative growth demand this will be so. With him I feel that there has been a significant under-estimate of the extent to which demand in these areas will come from beyond the 17 to 22 age group which is primarily considered in his figures. Our experience in Western Australia is that the age group currently showing the greatest proportionate growth in tertiary education is composed of students over 21. Among them are those who find a motivation and develop a readiness for tertiary education based on experience after a period away from school. There are those too who are seeking further enhancement of their knowledge and qualifications either to keep up with developments and opportunities in their respective fields and responsibilities, or indeed to transfer to other fields where developments and opportunities are greater. Then there are those who seek tertiary or other further education as a consumption good related to the increasing leisure discussed by Hughes in his paper. The student population potential in these various fields is almost limitless as compared with primary and secondary education which are directed to restricted age groups.

Nor should it be overlooked that from tertiary and technical education often flow the most immediate benefits in economic efficiency which assists to produce the wealth from which we must draw support for our total educational effort. Societies not only are wealthy because they have education, they have education because they are wealthy.

I have referred to the relatively low ranking of items dealing with the relationship of education with society. I wonder if this would be different with a different group of respondents particularly those outside the educational field. As these items were rated toward the lower end of the scale it is worth looking at the arguments against the propositions as probably having more influence on their placement and respresenting significant viewpoints. On incorporating resources and facilities outside the formal educational system the summary of arguments against reads simply—

> 'Attention to existing educational structure and formal education should have greater priority.'

On education as an instrument for social change the argument against ran —

> 'Education should not be used as a tool to produce social change — this is not its role. The statement assumes that it is possible to predetermine social behavioural patterns and to inculcate these; this is questioned, as also is the possibility of determining what behaviour is desirable.'

But perhaps most important of all in relation to the concerns of this paper was the item dealing with improving the relationship between educational institutions and society, particularly as this specifically refers to providing greater participation of individuals and groups in society in planning and decision-making. There were those positively inclined to the proposition, whose arguments when summarised were — .

> 'Educational institutions pay "lip service only" to the aim of serving society. Society should be more fully informed on the aims, methods and problems of educational institutions.'

However others took views which when summarised stated that —

> 'Outside interest is of limited value and can be obstructive. It is not considered necessary in connection with other professional activity — e.g. doctors and lawyers. It is not a need in itself.'

I have already shown my hand on this issue and it will come as no surprise that I am on the side of the UNESCO Seminar on Educational Planning in which[1] —

> 'it was accepted that educational planning should be essentially a public process, undertaken in an open climate of debate and discussion with the profession and with the public generally.'

I believe this because I consider that the relationship between education and the society in which it operates is of utmost importance, a proposition which seems to have been accepted in the structuring of this conference. If this is so and if education is a social service, as it is classified and I believe it to be, then surely the society has a right to a say in what education does. If there are major unresolved conflicts between community expectations of education and what education provides, the effectiveness of education must be seriously impaired.

In any case, on the purely practical issue of finance, Bassett points out that[2]—

> 'The prospects of government support for educational proposals requiring additional funds are greater if some or all of the following conditions are met: there is a substantial body of public opinion favouring the innovation, the objectives of the proposal are clearly and attractively presented, the value of the project is apparent.'

In involving the public more widely in determining priorities in education I believe that the Delphi Technique could be one approach of considerable value by providing economical sampling of considered opinions on relevant issues. Experience with the technique on this occasion has given rise to ideas for a variety of modifications in future projects. It is considered these modifications would make the technique more effective. However it was worth noting that even in the form in which it was used on this occasion, respondents generally reported finding the experiment enjoyable and interesting and quite a

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[1]Bassett, G. W., *op. cit.*, p. 185.
[2]Bassett, G. W., *op. cit.*, p. 153.

number referred to it as challenging. As a means of collecting a cross section of opinion the general view was that the technique was excellent, good, appealing or useful and should be developed further. There were a number of valuable criticisms of various aspects of the procedure and inevitably some variation in reaction. It was interesting that one respondent stated —

> 'The exercise has been stimulating and provocative and has forced me to clarify my ideas on priorities in Australian education. I am no longer in a state of "grey neutrality".'

Not that I want to claim too much for Delphi. In a sense it has only been used as one example to illustrate that various new techniques now being developed can contribute to the assessment of priorities which, if it is to be properly done, calls for a good deal of systematic study and enquiry. The gathering and interpretation of data, the sharing of this with the public in assimilable form, the adequate recognition of the variety of legitimate viewpoints and the reaching of reasonable consensus are essential elements in this task.

Nor is this a once for all job. Educational priorities at any given point in time are obviously related to the pattern of society and its demands, to what has already been achieved, to accumulating knowledge of the educational process, to demographic trends and to various other factors all of which are constantly changing. Priorities therefore must be dynamic not static. They must be constantly under review and backed by adequate continuing research.

Where to then from here? I have already indicated that an increasingly favourable climate towards the development of goals for the total educational system and on a national basis, could at this time invest this College, composed as it is, with a particular significance. In these circumstances what could be more appropriate than the College motto, 'Multa Membra — Corpus Unum' — 'Many members, One body'.

As a body we might press for the establishment of an appropriately constituted national commission. We could within our own ranks begin wider studies of viewpoints on priorities, or preferably as a national body offer to work with the proposed commission, which to be effective would need to call on a variety of resources.

In any case as a national body drawn from all elements of education, let our voice be heard that priorities must be national and for the whole system rather than parochial and piecemeal. Let us emphasise the need to assess priorities in order that we may use more effectively our scarce resources, may set our educational course for the future, and may as far as lies within our power be the arbiters rather than the victims of what lies ahead.